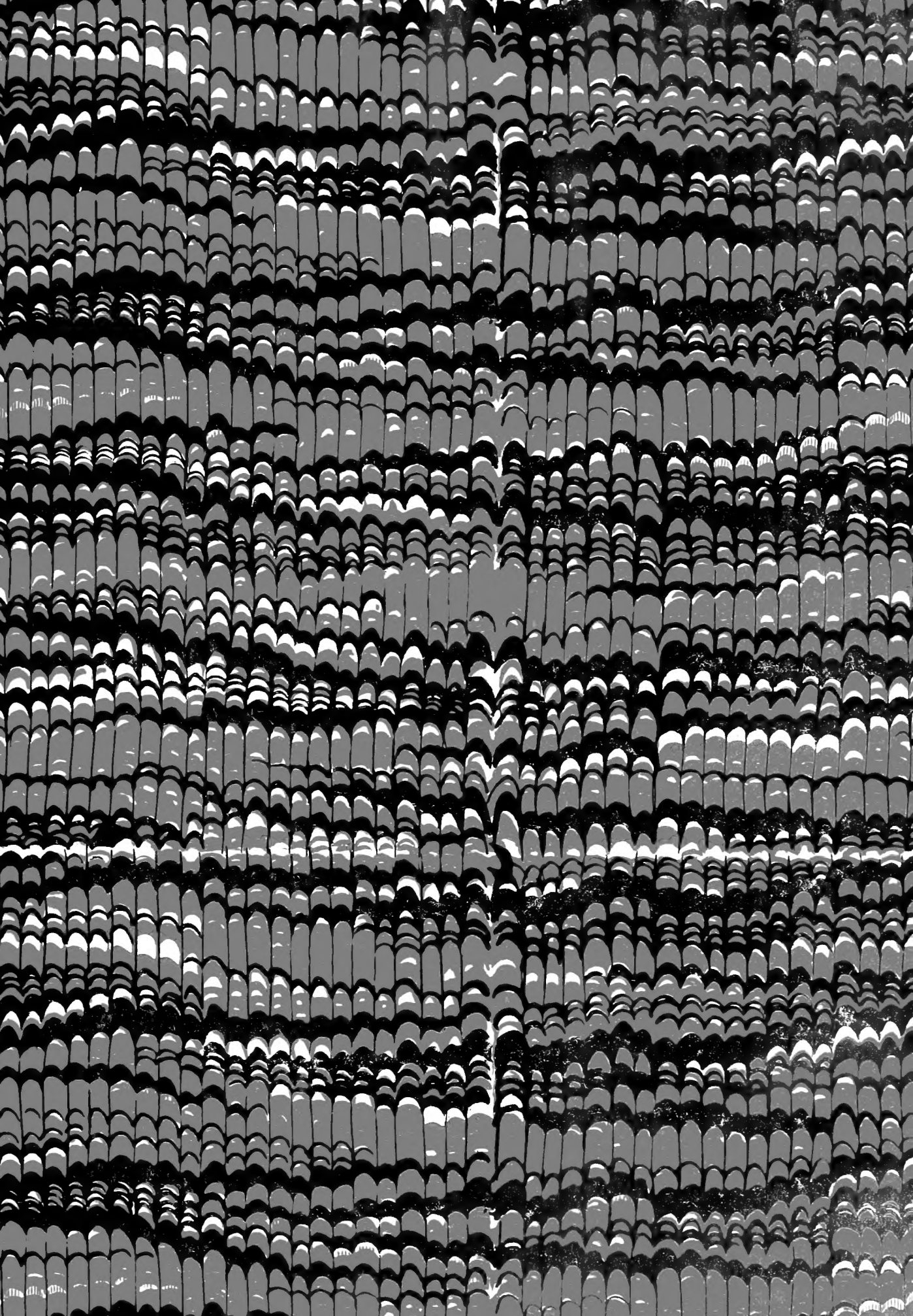




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RHOPALOCERA EXOTICA,

BEING

ILLUSTRATIONS OF NEW, RARE, AND UNFIGURED SPECIES

OF

BUTTERFLIES.

40

BY

HENLEY GROSE GROSE-SMITH, B.A., F.E.S., F.Z.S., ETC.

VOL. III.

WITH SIXTY HAND-COLOURED PLATES.

LONDON :

GURNEY & JACKSON, 1, PATERNOSTER ROW,

(SUCCESSORS TO MR. VAN VOORST.)

1897—1902.





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PREFACE.

THE present Volume of the "Rhopalocera Exotica" is now complete, and the Authors confidently anticipate that its contents will not be found in any respect inferior to those of their first Volume. Nearly two hundred and fifty species are figured, chiefly from the Collection of Mr. H. Grose Smith, though some are from the Collections of the Hon. W. Rothschild, Dr. Staudinger, and others, to whom we offer our best thanks for the loan of their valuable specimens. The authorities of the British Museum have also been so good as to lend specimens from the Hewitson Collection.

As before, special attention has been paid to the family *Lycænidæ*, the series of illustrations of African *Lycænidæ* having been continued, and another series of some of the most beautiful Oriental species commenced.

The Authors have now to announce a small alteration in the scheme of the next Volume. Instead of issuing a Part containing three Plates Quarterly, Parts will in future be issued at such intervals as may be found most convenient, and the number of Plates may likewise vary. The price of each Part will be regulated according to the number of Plates which it may happen to contain, at the same rate per Plate as the Parts already published.

H. GROSE SMITH,
W. F. KIRBY.

LONDON,
April, 1897.

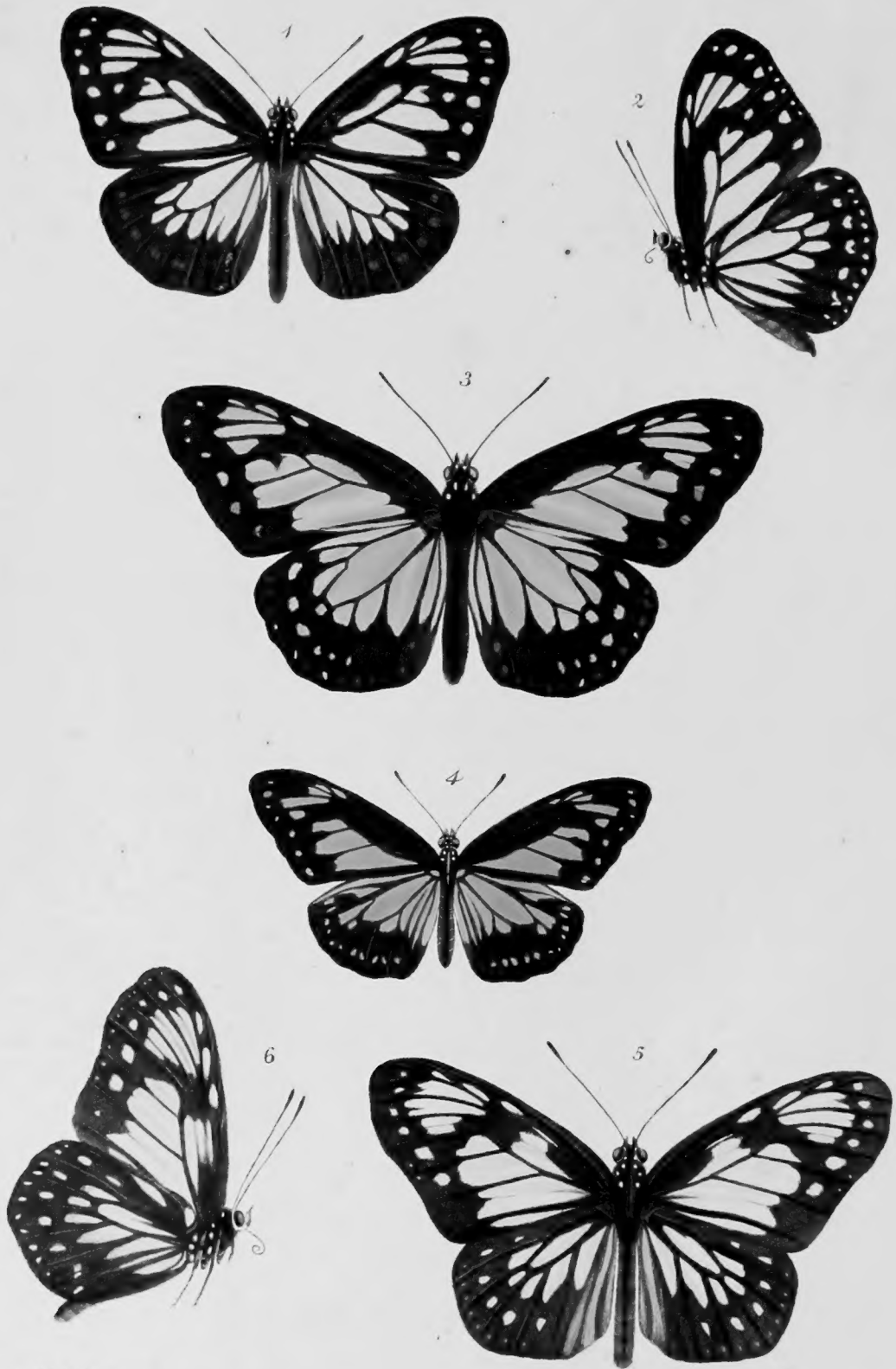




NYMPHALIDÆ.

DANAINÆ.

ASTHIPA.



Rose Montezano del. et lith. 1830.

Hanhart imp.

1. 2. ASTHIPA ROTUNDATA, ♂.

4. ASTHIPA TIMORICA.

3. " CLINIAS.

5. 6. " GARAMANTIS, ♂.

NYMPHALIDÆ.—DANAINÆ.

ASTHIPA. I.

I.—ASTHIPA ROTUNDATA. ♂. FIGS. 1, 2.

Asthipa Rotundata, H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 5, p. 171 (February, 1890).

Exp. ♂ $2\frac{3}{4}$; ♀ 3 inches.

Male. "UPPERSIDE dark fuliginous-brown, with bluish-white vitreous spots. Anterior wings with two spots below the first and second subcostal nervules; beneath these at the end of the cell are three elongate spots, the second the longest, the third the shortest; between the upper and second median nervules a cordate spot close to the median nervure and a small round spot beyond it; two broad elongate spots, somewhat attenuated externally, between the middle and lowest median nervules and between the latter and the submedian nervure respectively; a rather narrow elongate spot in the cell close above the median nervure. Posterior wings with the cell and the spots above and around it as in *A. Citrina*, Feld.; but those on the disk are somewhat narrower; there is a row of round white spots towards the outer margins of both wings, being on the anterior wings very conspicuous, and on posterior wings nearly obsolete.

"UNDERSIDE. Both wings as above, but on the anterior wings, near the outer margin, between the median nervules are several minute white spots, and on the posterior wings are two very conspicuous submarginal uninterrupted rows of white spots, the inner row consisting of seven lunulate spots, the outer row of twelve small round spots.

"The female resembles the male, but is paler, and the two spots below the cell on the anterior wings are outwardly more acute." (H. G. S., *loc. cit.*)

Hab. New Ireland (Rev. R. H. Rickard).

In the Collection of Henley Grose Smith.

Allied to *A. Garamantis*, Godm. and Salv.; but the wings, especially in the male, are broader and rounder.

 II.—ASTHIPA CLINIAS. ♂. FIG. 3.

Asthipa Clinias, H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 5, p. 170 (February, 1890).

Exp. $3\frac{1}{2}$ inches.

"Allied to *A. Citrina*, Feld., and *A. Gloriola*, Butl., from which it differs in the following respects," in addition to its much larger size.

"*Male*. On the upperside of the anterior wings the vitreous spot between the second discoidal and upper median nervules is very short, and the cell is almost entirely dark brown, there being only a comparatively short and narrow vitreous spot above the median nervure. On the posterior wings the spot at the end of the cell is very small, and there is a double submarginal row of white spots, the inner row being very distinct, but interrupted between the lower median nervule and submedian nervure, the three upper spots being treble the size of those towards the anal angle; the outer row of spots is indistinct.

"*UNDERSIDE*. Anterior wings with a single row of submarginal white spots, outside which are two small spots near the apex, and two between the upper and middle median nervules. On the posterior wings is a double row of submarginal white spots, the inner row interrupted as on the upper side, the outer row being uninterrupted; on the lower median nervule, halfway between the margin and the median nervure, is a patch of white scales." (H. G. S., *loc. cit.*)

Hab. New Ireland (Rev. R. H. Rickard).

In the Collection of Henley Grose Smith.

III.—ASTHIPA TIMORICA. ♀. FIG. 4.

Mangalisa Timorica, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 5, vol. 19, p. 369 (May, 1887).

Exp. $2\frac{3}{8}$ inches.

"*Female*. *UPPERSIDE* brown. Anterior wings with a submarginal row of small spots, two subcostal spots, beneath which are two elongated spots, the upper one less than half the length of the lower, below which, between the discoidal nervules, is a small lunular spot; beneath the first, second, and third median nervules are three elongated quadrate spots divided by the nervules; all the spots pale yellow, and transparent. Posterior wings with a submarginal row of spots, the space between the costa and the cell as far as the first subcostal nervule, a triangular spot below the latter, the cell and two spots beyond it, and

the basal two-thirds of the space beneath the cell intersected by the brown nervules, pale transparent yellow.

“UNDERSIDE. Same as above, but paler.” (H. G. S., *loc. cit.*)

Hab. Timor (H. O. Forbes).

In the Collection of Henley Grose Smith.

Resembles *Danaïs Tytia*, Gray, in shape, but the wings are narrower, and it is much smaller than the other species of this group.

IV.—ASTHIPA GARAMANTIS. ♀. FIGS. 5, 6.

Danaïs Garamantis, Godman and Salvin, “Annals and Magazine of Natural History,” ser. 6, vol. 1, p. 210 (March, 1888).

Exp. $3\frac{1}{2}$ inches.

Male. Anterior wings rather long, the hind margin slightly concave; posterior wings with the hind margin almost angulated, with the part nearest the anal angle nearly straight.

UPPERSIDE smoky-black, anterior wings with a large subhyaline discoidal space, divided by the veins into five (one portion lying within the cell); a subapical blotch divided into three; and three costal and six submarginal spots, all subhyaline.

UNDERSIDE nearly as above, but a white spot at the base of the posterior wings, another on the middle of the costa, and a double row of submarginal white spots.

Female similar, but the anterior wings shorter, and the hind margin of the posterior wings scarcely angulated.

Hab. Aola, Guadalcanar Island (C. M. Woodford).

In the Collections of Messrs. Godman and Salvin and of Henley Grose Smith.

“A distinct species, apparently allied to *D. Schenki*, Koch, a common insect throughout the Solomon Islands. Like *D. Schenki*, the secondaries are without a sexual brand, but in *D. Garamantis* the hyaline spots are of less extent, and have no yellow tint whatever.

“Mr. Woodford’s Collection contains a few specimens of both sexes, all taken on Guadalcanar.” (G. and S., *loc. cit.*)

NYMPHEALIDAE

PANAINA

ASTILIA II & RAVADEBA



W. A. P. 1911

ASTILIA II & RAVADEBA

7,8 RAVADEBA PHILLO♀

NYMPHALIDÆ.—DANAINÆ.

ASTHIPA II. AND RAVADEBA.

ASTHIPA. II.

V.—ASTHIPA MELUSINE. ♂. FIGS. 1, 2. ♀. FIG. 3.

Asthipa Melusine, H. Grose Smith, "Novitates Zoologicæ," I., p. 586 (July, 1894).

Exp. ♂. $2\frac{5}{8}$ inches; ♀. $2\frac{3}{4}$ inches.

Male. UPPERSIDE black with white hyaline spots; resembles *A. Kirbyi*, Grose Smith, but the hyaline portion of the wings is not tinged with yellow. On the anterior wings the three subapical elongate hyaline spots are differently arranged, being more obliquely situated; the lowest of them is not concave on its outer edge; the interspace between the two uppermost median nervules is not hyaline as in *A. Kirbyi*, but there is a minute hyaline spot above the middle median nervule at its junction with the discocellular nervule, which is absent in some specimens, and there is no hyaline spot in the cell above the median nervule. On the posterior wings the hyaline spots or spaces in and around the cell are very like those in *A. Kirbyi*, but those between the subcostal and discoidal nervules are outwardly concave instead of being acute. There are no submarginal rows of spots.

On the UNDERSIDE the outer row of submarginal spots on the anterior wings of *A. Kirbyi* is represented only by four minute spots at the apex, and on the posterior wings the inner row of submarginal spots becomes obsolete between the median nervules, though this feature is not constant. Both wings are blacker, wider, and rounder than in *A. Kirbyi*, and on the anterior wings the outer margin is somewhat less concave.

The *Female* resembles the *Male*, but the wings are rounder; on the underside of the anterior wings there is a double row of submarginal spots, the outer row, which does not extend beyond the submedian nervule, consisting of minute spots in pairs between the veins; on the posterior wings there is also a double

row of submarginal spots, the inner row becoming obsolete towards the anal angle.

Body markings as in *A. Kirbyi*.

Hab. Sattelberg, near Finsch Hafen, German New Guinea (Webster and Cotton, 1894).

In the Collections of the Hon. Walter Rothschild and of Mr. H. Grose Smith.

There was a good series of this species in the Collection. The principal difference between it and *A. Kirbyi* is the absence on the anterior wings of the hyaline spaces in the cell and between the two upper median nervules, and its much blacker colour.

VI.—ASTHIPA KIRBYI. ♂. Figs. 4, 5. ♀. FIG. 6.

Asthipa Kirbyi, H. Grose Smith, "Novitates Zoologicæ," I., p. 339 (April, 1894).

Exp. ♂. $2\frac{5}{8}$ inches; ♀. $2\frac{3}{4}$ inches.

Male. UPPERSIDE scarcely distinguishable from *A. Schenkii*, Koch, but the hyaline portion of the wings is less brightly suffused with yellow, and on the posterior wings the hyaline spots or spaces which surround the cell are much more restricted.

The UNDERSIDE resembles the upperside, but is whiter, and on the posterior wings the spot which lies between the costal and subcostal nervures is considerably less elongate.

The *Female* resembles the *Male*, but is paler, and the wings are more rounded.

Head and thorax black, spotted with white; abdomen smoky grey above, whitish beneath.

Hab. Stephansort, German New Guinea (Webster, 1894).

In the Collections of the Hon. Walter Rothschild and of Mr. H. Grose Smith.

A good series of both sexes was received.

RAVADEBA. I.

I.—RAVADEBA PHILO. ♀. FIGS. 7, 8.

Revadebra Philo, H. Grose Smith, "Novitates Zoologicæ," II., p. 77 (July, 1895).

Exp. $2\frac{3}{4}$ inches.

Female. UPPERSIDE. Both wings resemble those of *R. Phyle*, Felder, but differ from it as under: On the anterior wings the band of semi-hyaline spots beyond the cell is more oblique; the first spot in this band nearest the costa is closer to the second; the third spot is more elongate, and the fourth is smaller, and situate nearer the outer margin; the outer row of submarginal spots is not continued beyond the uppermost median nervule; the third and fourth spots from the apex being obsolete. On the posterior wings across the disk, a little beyond the middle, is situate a row of spots in pairs between the veins, the pair between the subcostal nervules being confluent; the submarginal row of small spots which in *R. Phyle* extends nearly to the anal angle is represented only by two indistinct spots near the apex.

The UNDERSIDE does not differ from the upperside, except that there is a submarginal row of minute spots in pairs between the veins on the posterior wings.

Head and thorax black, spotted with white, abdomen smoky brown. Back of thorax beneath, and abdomen beneath, white.

Hab. Sumbawa (Doherty).

In the Collection of the Hon. Walter Rothschild.

One specimen only obtained.



MYCALPESIS 1.

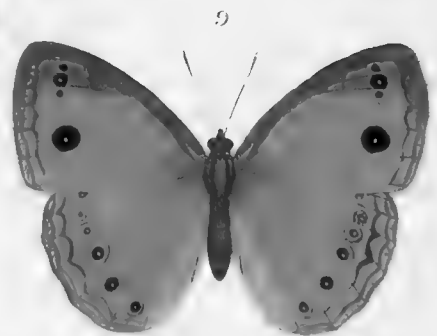
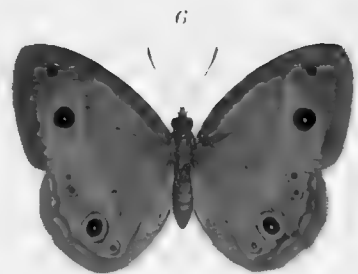
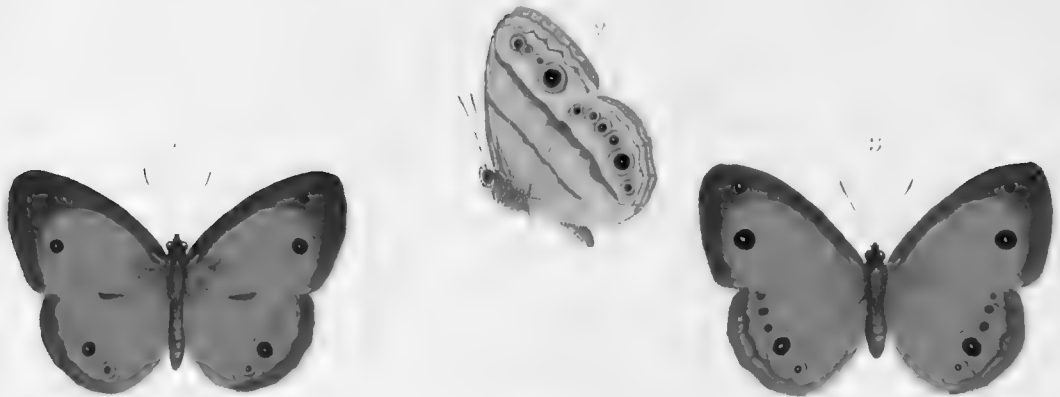


Fig. 1. 1. 2. 3.

West Newman imp.

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MYCALPESIS 1. MYCALPESIS 2. MYCALPESIS 3. MYCALPESIS 4. MYCALPESIS 5. MYCALPESIS 6. MYCALPESIS 7. MYCALPESIS 8. MYCALPESIS 9.

SATYRIDÆ.

MYCALESIS. I.

I.—MYCALESIS FULVIANA. ♂. FIGS. 1, 2. ♀. FIG. 3.

Mycalesis Fulviana, H. Grose Smith, "Novitates Zoologicae," I., p. 360 (April, 1894).

Exp. ♂ $1\frac{5}{8}$ inches; ♀ $1\frac{3}{4}$ inches.

Male. UPPERSIDE. Both wings bright rufous-brown. Anterior wings, with the costal area, upper part of the cell, apex, and outer marginal area broadly dark brown; the basal part of the bright rufous area is rather darker than the outer part, the darker part being rather clearly defined transversely across the wings; a black spot centred with a white dot between the second and third median nervules, with a scarcely visible ring round it, is situate in the pale area, which extends narrowly beyond the spot. Posterior wings with a row of spots across the disc, the three uppermost more or less obsolete; the fourth spot is large and black, with a white dot in the centre, and surrounded with a bright fulvous zone, margined narrowly with dark brown; the fifth spot, between the lowest median nervule and submedian nervure, is small, centred with a white dot and surrounded by a rather darker fulvous zone; the outer margin, has a broad brown border, in which are two sinuate lines, the inner line the broader.

UNDERSIDE. Both wings biscuit-colour, crossed with two reddish-brown bars from the costa to the submedian nervure; the inner bar crosses the cell on both wings about its middle, and is rather narrow; the outer bar lies beyond the cell, and becomes broader in the middle. There are two sinuate narrow lines before the margin, which is brown, and in the space between them and the bars are two rows of black spots, centred with white dots, and surrounded with narrow brown rings. Those on the anterior wings are four in number, and lie between the upper discoidal and lowest median nervules, the lowest spot being the largest and the two middle spots the smallest. The spots on the

posterior wings are six in number, the fifth spot being large and the others of an almost uniform size. The rings round the upper five spots are contiguous; the lowest is separate.

The female resembles the male, but is paler on the upperside and rather darker on the underside.

Hab. Humboldt Bay, German New Guinea (Doherty and Captains Cayley Webster and Cotton).

In the Collections of the Hon. W. Rothschild and H. Grose Smith.

Exp. ♂ $1\frac{5}{8}$ inches; ♀ $1\frac{3}{4}$ inches.

Nearest to *M. Mehadeva*, Boisd., but brighter fulvous on the upperside, with broader brown margins on the underside. The ground-colour of the wings is paler, and devoid of any violaceous tint. In the row of spots on the posterior wings the third spot is round and not out of line, instead of being narrowed and elongate inwardly, as in *M. Mehadeva*, and in that species there is an additional spot at the anal angle. It is also near *M. Messalina*, Staudinger; but on the upperside the dark brown marginal border of the anterior wings does not extend inwardly below the discal spot, and the underside is not at all violaceous, as in that species.

II.—MYCALESIS COMES. ♂. FIGS. 4, 5. ♀. FIG. 6.

Mycalesis Comes, H. Grose Smith, "Novitates Zoologicæ," I., p. 363 (April, 1894).

Exp. ♂ $1\frac{1}{2}$ inches; ♀ $1\frac{5}{8}$ inches.

Male. UPPERSIDE. Near to *M. Fulviana*, but duller rufous-brown and smaller. On the anterior wings the dark apical area extends inwardly nearer the end of the cell, and the black discal spot is more surrounded by the dark colour. On the posterior wings there is only one spot on the disc which lies between the two lowest median nervules, and the zone round it is scarcely visible.

On the UNDERSIDE the ground-colour is pinkish-grey on both wings. The third spot in the discal row on the anterior wings is obsolete, and the row of spots on the posterior wings is somewhat curved.

Female. Much darker and more rufous than *M. Fulviana*, and the area in which the discal spots are placed is almost the same colour as the basal part of the wings, but across both wings there is a faint indication of a dark streak. There is no zone round the discal spot on the anterior wings, and the zone round the spot on the posterior wings is darker.

UNDERSIDE with the spots and bars as in *M. Fulviana*; the space in which

the discal spots is situate is the same colour as the ground-colour of the rest of the wings, and is more violaceous than in *M. Fulviana*.

Hab. German New Guinea (Doherty and Captains Cayley Webster and Cotton).

In the Collections of the Hon. W. Rothschild and H. Grose Smith.

III.—MYCALESIS ELIA. ♂. FIGS. 7, 8. ♀. FIG. 9.

Mycalesis Elia, H. Grose Smith, "Novitates Zoologicae," I., p. 361 (April, 1894).

Exp. ♂ $1\frac{5}{8}$ inches; ♀ $1\frac{7}{8}$ inches.

Male. UPPERSIDE resembles *M. Fulviana*, but is rather less rufous. The anterior wings are crossed beyond the middle by a vertical narrow brown line, which, below the third median nervule, curves outwardly and then sharply inwards towards the submedian nervure. In the paler fulvous space beyond this vertical line is a black spot centred with a white dot and an indistinct curved line outside it, situate between the middle and lowest median nervules; and there is another smaller spot situate in the apical dark brown area, surrounded by a rufous ring. On the posterior wings are three ocelli beyond the middle; the middle larger than the upper one, which is rather larger than the lowest spot. Above the upper spot is an indication of several other spots.

UNDERSIDE. Both wings resemble *M. Anapita*, Moore, in coloration, the basal two-thirds being bright yellowish-brown bordered by a vertical darker brown line; beyond this to the outer margins the wings are paler. In the middle of the pale space on each wing is a row of ocelli, between which and the margins are two sinuate narrow brown lines. On the anterior wings the ocelli are five in number and contiguous, situate between the lowest subcostal and lowest median nervules, the second and fifth being the largest. On the posterior wings, which are crossed before the middle by an undulating, somewhat indistinct narrow brown line, the ocelli are six in number, whereof the first, fourth, and fifth are the largest and nearly equal in size, and the second and third are very small.

Female. UPPERSIDE. Both wings are more fuliginous-brown and less robust than in the same sex of *M. Fulviana*. On the anterior wings the space inside the vertical line is very fuliginous; the spots are as in the male, with the

addition of a small black spot centred with a white dot on each side of the sub-apical spot. On the posterior wings is a row of six ocelli beyond the middle; the first is indistinct, and about equal in size to the fifth spot; the second is small, the third and fourth gradually becoming larger, the fifth the largest, and the sixth the size of the third.

UNDERSIDE. On the posterior wings the inner two-thirds are fuliginous-brown, bordered with a rufous dark line; a sinuate dark streak crosses the cell. Beyond the rufous line is a broad pale biscuit-coloured space, in which are situate the row of spots, as in the male. Beyond this pale space to the inner margin the wings are again fuliginous, bordered internally with a narrow sinuate line, and traversed before the outer margin by another narrow line. The posterior wings are similar, with the spots as on the upperside. Before the middle is a narrow sinuate dark line from the costa, crossing the cell and a little beyond it.

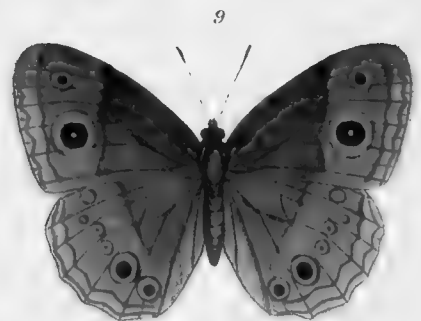
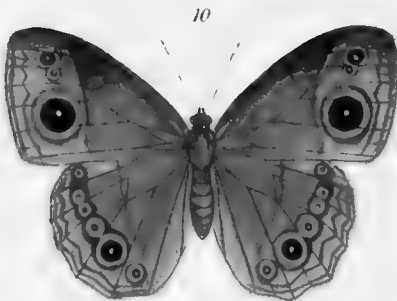
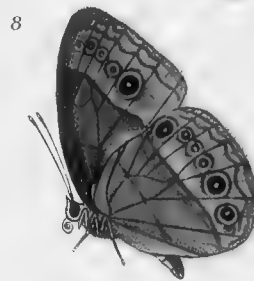
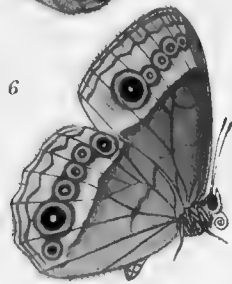
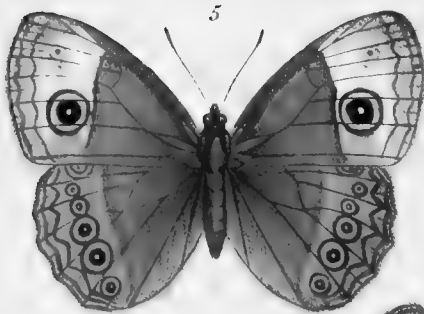
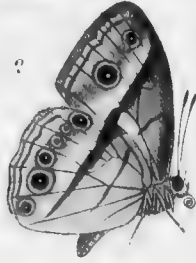
Hab. German New Guinea (Doherty and Captains Cayley Webster and Cotton).

In the Collections of the Hon. W. Rothschild and H. Grose Smith.
Nearest to *M. Fulviana*, but quite distinct.



SAITURKIDAE.

MYCALESTIS II.



West, Journ. cr. ins. p.

West, Journ. cr. ins. p.

MYCALESTIS BARBARA ♀

MYCALESTIS PURGA ♀

" LORNA ♀

" " ♀

" " ♀

10 " SHIVA ♀

SATYRIDÆ.

MYCALESIS. II.

IV.—MYCALESIS BARBARA. ♂. FIGS. 1, 2.

Mycalesis Barbara, H. Grose Smith, "Novitates Zoologicæ," I., p. 589, (July, 1894).

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE dark brown, both wings crossed beyond the middle by a bright fulvous band, commencing on the anterior wings below the uppermost median nervule, rounded at its apex, and gradually widening to the inner margin. On the posterior wings the band is widest on the first subcostal nervule, and decreases in width, ceasing a little before the submedian nervure; the space above the first subcostal nervule to the costal margin is pale brownish-white, except at the apex. Outside the fulvous band are situate on the anterior wings two black spots, centred with white dots, one near the apex; the other between the two lowest median nervules slightly invades the fulvous band. On the posterior wings are three similar spots between the median nervules and the submedian nervure; the middle spot likewise slightly invades the fulvous band.

UNDERSIDE. Anterior wings pinkish-brown, with white irrorations, the fulvous band of the upperside being represented by a slightly pinkish-white band extending nearly from the costal to the inner margin; the cell is crossed at its middle by a rather narrow straight dark bar; the two spots as on the upperside, with two minute spots between them, having fulvous rings round each, and situate in a darker indistinct space, beyond which the ground colour is paler; two sinuate dark brown lines before the outer margin. Posterior wings similar to the anterior wings, but more irrorated with white scales: the wings are crossed before the middle by a narrow dark band commencing a little above the subcostal nervure, and terminating before the inner margin; a little beyond the middle is another dark band, broadly shading on its inner side into the grey ground colour; this is followed by the white band, outside which is a

row of six spots, centred with white, and surrounded by fulvous zones; the second and third spots are very small, the first and fifth the largest.

Hab. Saddleberg, German New Guinea (Captains Cayley Webster and Cotton, 1894).

Not near any described species; a single male only is in Mr. Grose Smith's Collection.

V.—MYCALESIS LORNA. ♂. FIGS. 3, 4. ♀. FIGS. 5, 6.

Mycalesis Lorna, H. Grose Smith, "Novitates Zoologicæ," I., p. 362 (April, 1894).

Exp. ♂ $1\frac{3}{4}$ inches; ♀ $2\frac{1}{4}$ inches.

Male. UPPERSIDE differs from *M. Shiva*, Boisd., on the posterior wings, in having a row of five spots across the disc, the first small, the second, third and fourth increasing in size, the fourth being the largest, the fifth being the same size as the second; all the spots are surrounded by a bright fulvous zone.

UNDERSIDE. Both wings more rufous than in *M. Shiva*. There are five spots in the discal row of spots on the anterior wings, the second and third confluent, all the spots being situate in a zone of fulvous rings which are confluent with each other. On the posterior wings in the discal row of spots the second spot is less out of line, and the third and fourth spots are larger than in *M. Shiva*, the pale space in which they are situate being narrower and straighter, and the fulvous zones round them brighter.

Female. UPPERSIDE. Both wings paler tawny-brown than in *M. Shiva*, with a broad rather fuliginous white band extending across the disc and on each side of the discal spot and a little below it, where it shades into the ground-colour. Posterior wings with a discal row of five spots (in one instance six spots), the first small, the second, third and fourth increasing in size and situate under each other, not out of line, as in the female of *M. Shiva*.

UNDERSIDE. Both wings with the rows of spots as above, situate in a broad fuliginous white space, and with an additional spot near the apex of the posterior wings nearly equal in size to the largest spot; the cell of both wings is crossed at the middle, from the costa to near the middle of the inner margin, by an irregular brown streak; the ends of the cells are also marked by a brown streak.

Hab. New Guinea.

In the Collections of the Hon. W. Rothschild and H. Grose Smith.

Five males and three females from Korrido, Jobie, and Humboldt Bay. Near *M. Æthiops*, Butler, and *M. Shiva*, Boisdual, which two species are exceedingly close to each other.

VI.—MYCALESIS DURGA. ♂. Figs. 7, 8. ♀. Fig. 9.

Exp. about 2 inches.

Male. UPPERSIDE. Anterior wings brown, a large dull reddish space, not sharply defined, extending over the basal half of the cell and lower part of the wing, obliquely widening to four-fifths of the length of the inner margin. A large black eye, with a small white pupil and a rather indistinct tawny outer ring between the two lower median nervules, at about half their length. Posterior wings dull reddish-brown, with a dark brown border, divided off by a sinuous black line; extreme costa grey; subcostal area blackish, with a large tuft of yellowish-white hairs near the base. Between the two lower median nervules, and well within the border, is a black eye with a white pupil, enclosed by a rather broad outer ring, rather lighter than the ground colour, and a narrow blackish ring beyond; between the lower median nervule and the submedian nervure is a similar but smaller eye, nearer to the border.

UNDERSIDE pinkish-brown, with two plum-coloured lines at one-third and two-thirds of the length of the wings respectively; the space between is much suffused, especially on the anterior wings within the outer line. The marginal area of all the wings is of a more greyish-brown; the nervures and folds are brown, and there are two blackish and much sinuated submarginal lines, and another line at the base of the fringes. Anterior wings whitish towards the base of the inner margin, with a bluish space above the white one; five black eyes, the lowest four with bluish-white pupils, with yellowish outer rings, and enclosed by confluent brown rings forming almost a band, within the submarginal lines. They stand between the veins, as far as the lowest median nervule; the lowest is largest, the second next largest, the first is rudimentary. Posterior wings with a similar row of seven eyes, of which the first and fifth are the largest; the last is rudimentary.

Female. UPPERSIDE of a lighter and more uniform reddish-brown, darkest on the anterior wings towards the apex. Two submarginal sinuated blackish lines on all the wings (the innermost becoming obsolete above the middle of the

anterior wings), and a dark line at the base of the fringes. The space between these lines inclines to yellowish, especially on the posterior wings. Anterior wings with two eyes, one as in the male, but larger; the other, rather small, nearer the tip. Posterior wings with six eyes, the fifth the largest, the second quite rudimentary, and placed a little nearer the hind margin than the others.

UNDERSIDE nearly as in the male, but the marginal area is much lighter, with the lines and spots much more sharply defined; the seventh rudimentary spot visible on the posterior wings of the male is absent.

Hab. Humboldt Bay (September, October, 1892) (Doherty).

In the Collections of the Hon. Walter Rothschild and Mr. H. Grose Smith.

This species is redder than *M. Shiva*, Boisduval, and differs also in the smaller number of spots visible on the upper surface of the wings in both sexes.

VII.—MYCALESIS SHIVA. ♀. FIG. 10.

Satyrus Shiva, Boisduval, "Voyage de l'Astrolabe," Lépidoptères, p. 141, n. 9 (1832).

Exp. 2 inches.

Female. UPPERSIDE brown, the marginal area paler, with blackish veins, and three black lines, one at the base of the fringes, another close to it, and the third zigzag, broader, and more widely separated. Anterior wings with the inner margin wholly brown to the submedian nervure; three eyes in the pale area, a very large one just below the middle, black with a white pupil, and outer yellow and blackish rings; and a small pair nearer the apex, with the yellow rings confluent, and enclosed in a common brown pear-shaped rim; the lowest eye is smaller and rather nearer the base than the other. Hind wings with six eyes in brown rims; the two outermost are detached; the four inner ones are paired, the yellow rings touching, and each pair being enclosed by a common brown rim; the fifth eye is largest, and the two first are rudimentary, without white pupils.

UNDERSIDE very similar to that of *M. Durga*, but the spaces on both wings in which the rows of ocelli are situate are much paler.

Hab. Salawaty (Doherty).

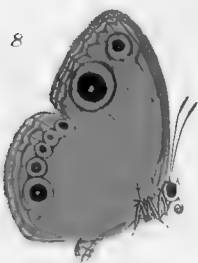
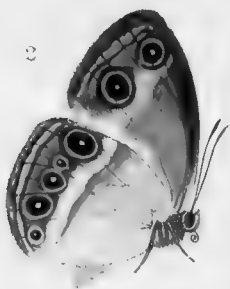
In the Collections of the Hon. W. Rothschild and of Mr. H. Grose Smith.

Boisduval described this species from Dorey; the specimen figured is from Salawaty (Doherty).

A male marked "Roon, W. Doherty" is in Mr. Rothschild's Collection.

SATYRIDÆ.

MYCALE'SIS III.



of the same species as the first

West Newman 1873

MYCALE'SIS INTERRUPTA ♂	4	MYCALE'SIS MARGINATA ♀
" " ♀	5, 6	" " ♀
" " ♂	9, 10	" " ♀
OBSCURA ♂		SULENSIS ♂

SATYRIDÆ.

MYCALESIS. III.

VIII.—MYCALESIS INTERRUPTA. ♂. FIGS. 1, 2. ♀. FIG. 3.

Mycalesis Interrupta, H. Grose Smith, "Entomologist's Monthly Magazine," vol. 25, p. 299 (1889).

Exp. 2–2½ inches.

Male. UPPERSIDE. Anterior wings with the inner two-thirds bright tawny, the outer half of the costa and the rest of the wings dark brown. There is a subapical black spot nearly lost in the brownish colour, but centred with white; and a similar spot between the middle and lowest median nervules, the bright tawny of the base extending above this spot between the upper and middle median nervules. Posterior wings dark brown, greenish tawny towards the base and anal angle; two narrow submarginal dark brown lines, inside which are four black spots centred with white, the three lowest surrounded with a pale brown ring, the first spot nearly obsolete, the third much the largest. Costa white; a large tuft of grey hairs at the base of the cell.

UNDERSIDE. Anterior wings: basal half fulvous, shading into a bright chestnut-brown transverse line a little beyond the middle, followed by a pale yellowish-brown space shading outwardly to dusky brown, in which are two large black ocelli (the lower the larger), centred with white, surrounded with an orange ring margined with dark brown, the space beyond to the outer margin tawny, crossed by two sinuate dark brown lines. Posterior wings: basal half bluish-brown, shading into a bright chestnut-brown band a little beyond the middle; the space beyond greyish-blue, shading outwardly to dusky brown, in which are situate five ocelli, similar to those on the anterior wings, the first and fourth the largest, the second the smallest, the third and fifth about the same size; the space beyond tawny, with two submarginal lines as on the anterior wings.

Body brown above; thorax clothed with greenish hairs; antennæ brown

above, reddish beneath. Tip reddish, preceded by a blackish space. Body beneath white; palpi and legs lined with white.

Female. Larger than the male, but otherwise similar, except on the upper surface. On the anterior wings the tawny basal area is more extended, the lower ocellus being completely surrounded by it. On the posterior wings there are only three ocelli* above, the small upper ocellus in the male having here quite disappeared.

Hab. Rubiana Lagoon, Solomon Islands (Woodford).

In the Collection of Mr. H. Grose Smith.

Allied to *M. Messene*, Hewitson, and *M. Sara*, Mathew, but with rather narrower wings.

IX.—MYCALESIS MARGINATA. ♂. FIG. 4. ♀. FIGS. 5, 6.

Mydosama Marginata, Moore, "Transactions of the Entomological Society of London" (1881), p. 307.

Exp. $1\frac{2}{3}$ – $1\frac{9}{10}$ inches.

Male. UPPERSIDE. Anterior wings oblong, the hind margin being very long, and the apex rather pointed. Yellowish-fulvous, shading into brown at the base; the hind margins and the costa of the anterior wings with a dark brown, moderately broad, regular border. Posterior wings with three ocelli towards the anal angle, composed of a central black spot, surrounded by fulvous and black rings; the middle one rests on the dark border, and the upper one stands almost within it.

UNDERSIDE light ochreous, with two rather broad slightly irregular rufous bars crossing the centre of the wings; two submarginal black lines, and an outer one at the base of the fringes, which are dark on the anterior, and tawny on the posterior wings; and a row of ocelli, five on the anterior, and seven on the posterior wings, formed as above, but with a more or less conspicuous white centre to the black spot. On the anterior wings the first and fourth, and on the posterior wings the first, fourth, and fifth are the largest. On the posterior wings, the row of ocelli is bordered within by an additional slightly festooned rufous stripe.

Body clothed with olive-green hair above, and yellowish-grey hair beneath.

Female. UPPERSIDE similar to the male. Anterior wings with a white dot near the inner edge of the dark border between the two lower median nervures.

Posterior wings with four or five ocelli, detached from the border, the last two with a white spot in the pupil. There is also a narrow tawny submarginal line, which is scarcely indicated in the male.

UNDERSIDE as in the male, but the lowest ocellus on the anterior wings is absent, and the fringes of all the wings are tawny.

Hab. Sumatra.

In the Collection of Mr. H. Grose Smith and others.

Allied to *M. Patnia*, Moore, from Ceylon.

X.—MYCALESIS XANTHIAS. ♂. FIGS. 7, 8.

Mycalesis Xanthias, H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 17, p. 374 (May, 1896).

Mycalesis Obscura, Grose Smith and Kirby, "Rhopalocera Exotica, Satyridæ-Mycalesis," III., figs. 7, 8.

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE rufous-brown. Anterior wings with two ocelli as in *M. Phidon*, Hewitson, but the ocellus between the two lowest median nervules is larger and rounder than in that species, and its iris is fulvous, becoming brighter fulvous externally. Posterior wings with four discal ocelli, each with a bright orange-fulvous iris, the space beyond the ocelli to the outer margin being also bright orange-fulvous traversed by two submarginal sinuate dark lines.

UNDERSIDE as in *M. Phidon*, but on the anterior wings the lower ocellus is larger and the transverse tawny band across the disk is more curved outwardly at its upper end, and is straighter at its lower end towards the inner margin; the space between the transverse bands and the outer margin on both wings is more yellowish than the basal portion of the wings. The row of six discal spots on the posterior wings closely resembles that on *M. Phidon*, but the pupils on the third and fourth spots are more strongly marked with black.

Hab. New Britain (Captain Cayley Webster and Mr. Ribb  ).

In the Collections of the Honourable Walter Rothschild and Mr. H. Grose Smith.

Allied to *M. Phidon*, Hewitson.

XI.—MYCALESIS SULENSIS. ♂. FIGS. 10, 11.

Exp. $1\frac{2}{3}$ inches.

Male. UPPERSIDE. Anterior wings dark reddish-tawny, with the costa and outer margin broadly black, the tawny colour extending above the inner margin nearly to the hinder angle. Between the two lower median nervules is an indistinct black ocellus, with a white pupil. Posterior wings lighter tawny, costa black to beyond the middle, fringes brown, inside which are two indistinct dusky lines. Only two ocelli are distinctly visible above; a black one with a white pupil between the two lowest median nervules, and a smaller one nearer the anal angle.

UNDERSIDE pinkish-grey, crossed by two reddish stripes; fringes brown, with two more or less festooned submarginal brown lines. Ocelli large, black, with white pupils, surrounded by yellow rings with outer brown rings. Anterior wings with four ocelli; the two upper ones wholly contiguous; the two lower ocelli being connected by the yellow rings. Posterior wings with seven ocelli, of which the fifth is the largest, and the seventh is very minute.

Hab. Sula (Wallace).

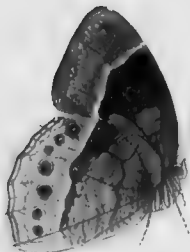
Allied to *M. Fulviana*, Grose Smith, *M. Mehadeva*, Boisduval, and *M. Plateni*, Staudinger. This species was in the Wilson Saunders' Collection, whence it came into Mr. Grose Smith's possession on his acquisition of that Collection.



STAMPED
MYCALESIS IV.



2



5



3



6



d

MYCALESIS IV.

MYCALESIS IV.

1. 2. MYCALESIS VALERIA 3.
3. " " 4.
5. " " 6.

5. MYCALESIS MYCALESIS 6.
8. 9. " " 7.

SATYRIDÆ.

MYCALESIS. IV.

XII.—MYCALESIS VALERIA. ♂. Figs. 1, 2. ♀. FIG. 3.

Mycalesis Valeria, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 87 (March, 1898).

Exp. ♂. $1\frac{3}{4}$ inches. ♀. 2 inches.

Male. UPPERSIDE. Blackish brown; anterior wings with two black spots on the disc, centred by a white dot, one before the apex, the other between the two lowest median nervules; the white band which crosses the disc on the underside is faintly visible through the wings. Posterior wings with the disc crossed from the middle of the costal margin to the lowest median nervule by a broad transverse white band which is widest on the costa and somewhat narrower at its termination, below which on either side of the lowest median nervule are two black spots centred by a white dot.

UNDERSIDE. Closely resembles *M. Barbara*, Gr.-Sm., but on the anterior wings the white band across the disc is rather narrower, and on the posterior wings is rather broader; on the posterior wings the spots in the discal row of ocelli are larger, and those on either side of the lowest median nervule are surrounded by broad orange rings.

Female. UPPERSIDE. Paler than the *male*; anterior wings with a broad white band which crosses the middle of the disc from the upper median nervule, where it is narrowest, to the inner margin where it is broadest, dusted with brown scales between the median nervules; the two discal spots as in the *male*. Posterior wings with the white band as in the *male*, but wider and more diffused and extending down to the spots on either side of the lowest median nervule, where it becomes tawny and confluent with the orange rings round the last-named spots.

UNDERSIDE. As in the *male*, but the white bands are broader, and the spots in the middle of the row of ocelli crossing the disc are nearly obsolete.

Hab. Milne Bay, British New Guinea (Doherty).

A very beautiful insect; on the underside it closely resembles *M. Barbara*.

In the Collection of the Hon. Walter Rothschild.

XIII.—MYCALESIS BIZONATA. Figs. 4, 5.

Exp. $1\frac{5}{8}$ inches.

Male. UPPERSIDE. Anterior wings with the costa upper part of the cell and outer third of the disc dark brown, the lower part of the cell, the middle and basal two-thirds of the disc bright fulvous; two black spots, each centred by a white dot, in the dark outer area; the upper spot is situate towards the apex, and the lower spot in the interspace between the two lower median nervules. Posterior wings with the outer half dark brown, shading into pale brown towards the base; one black spot centred by a white dot in the interspace between the two lower median nervules, and an indication of another smaller spot towards the anal angle.

UNDERSIDE. Both wings with the basal half pale fulvous brown, each crossed by two irregular rufous brown bars; the inner bars cross the cells about the middle; the outer bars are broader and, on the anterior wings, concave with zig-zag markings towards the inner margin; the areas beyond the outer bars in which the spots are placed are pinkish lilac-brown. On the anterior wings towards the apex are three black spots, the uppermost minute, the two lowest confluent and centred by two white dots; these are surrounded by a fulvous ring, margined by a pinkish brown ring; another larger black spot, centred by a white dot, is situate between the two lower median nervules, surrounded by similar rings.

On the posterior wings, crossing the disc, is a row of five black spots surrounded by similar rings; the two upper black spots are confluent and equal in size; the fourth spot is very large, and that nearest the anal angle is the smallest. Beyond the spots on each wing is a submarginal sinuate brown line, the outer margins being rather broadly rufous brown.

Hab. Milne Bay, British New Guinea (Meek).

In the Collections of the British Museum and Mr. Grose-Smith (type).

On a careful comparison of Mr. Fruhstorfer's description of *M. Remulina* (Berlin. Ent. Zeitschr., 1897, p. 118) from Celebes with the species figured under that name in the accompanying Plate, I am unable to accept the identification of the latter with *M. Remulina* which has been adopted in the collection of the British Museum, with regard to two specimens, identical with mine, from the same locality. I have, therefore, treated it as a distinct species and described it under the name of "*Bizonata*."

XIV.—MYCALESIS MEROPS. ♂. FIGS. 6, 7. ♀. FIGS. 8, 9.

Mycalesis Merops, H. Grose-Smith, "Novitates Zoologicæ," Vol. II., p. 80 (June 1895).

Exp. ♂. $1\frac{7}{8}$ inches. ♀. 2 inches.

Male. UPPERSIDE. Dark brown, rather more rufous than *M. Mineus*, Linn. Anterior wings with a large black ocellus on the disc between the middle and lowest median nervules, with a white pupil and a narrow tawny ring outside; the basal two-thirds of the wings are darker than the outer third, the dark area extending from the costa to the inner margin. Posterior wings elongated at the anal angle, and becoming paler; on the disc between the median nervules and the submedian nervure are three black ocelli with white pupils and tawny rings; the largest is in the middle, and the smallest is below. Near the margins of both wings is a narrow dusky line, with traces on the posterior wings of an inner sinuate line.

UNDERSIDE. Both wings purplish grey, the middle third crossed by a broad curved darker band, extending from the costa of the anterior to the inner margin of the posterior wings; the outside edge of the band is clearly defined by a narrow pale grey space. On the anterior wings, inside the band, the cell is crossed near the base by a sinuate line, and a subreniform darker spot near the middle; on the disc are two small ocelli, one towards the apex, the other between the middle and lowest median nervules; towards the outer margin are two sinuate dark lines. On the posterior wings the dark central band becomes grey towards the base and anal angle; the inner edge of the band where it crosses the cell is curved towards the base; on the disc between the veins is a row of seven ocelli with white pupils and tawny rings, the first, fourth, fifth, and sixth being larger than the others; outside the spots are two dark lines, of which the inner is very sinuate.

The *female* resembles the *male*, but is larger and paler.

Hab. Sambawa, Adonara, and Pura.

In the Collections of the Hon. Walter Rothschild and Mr. Grose-Smith.

Nearest to *M. Mineus* and *M. Perseus*, Fabr., but differs chiefly in the elongate shape of the posterior wings and on the underside in the shape of the central band.



PLATE IV LIBYTHES

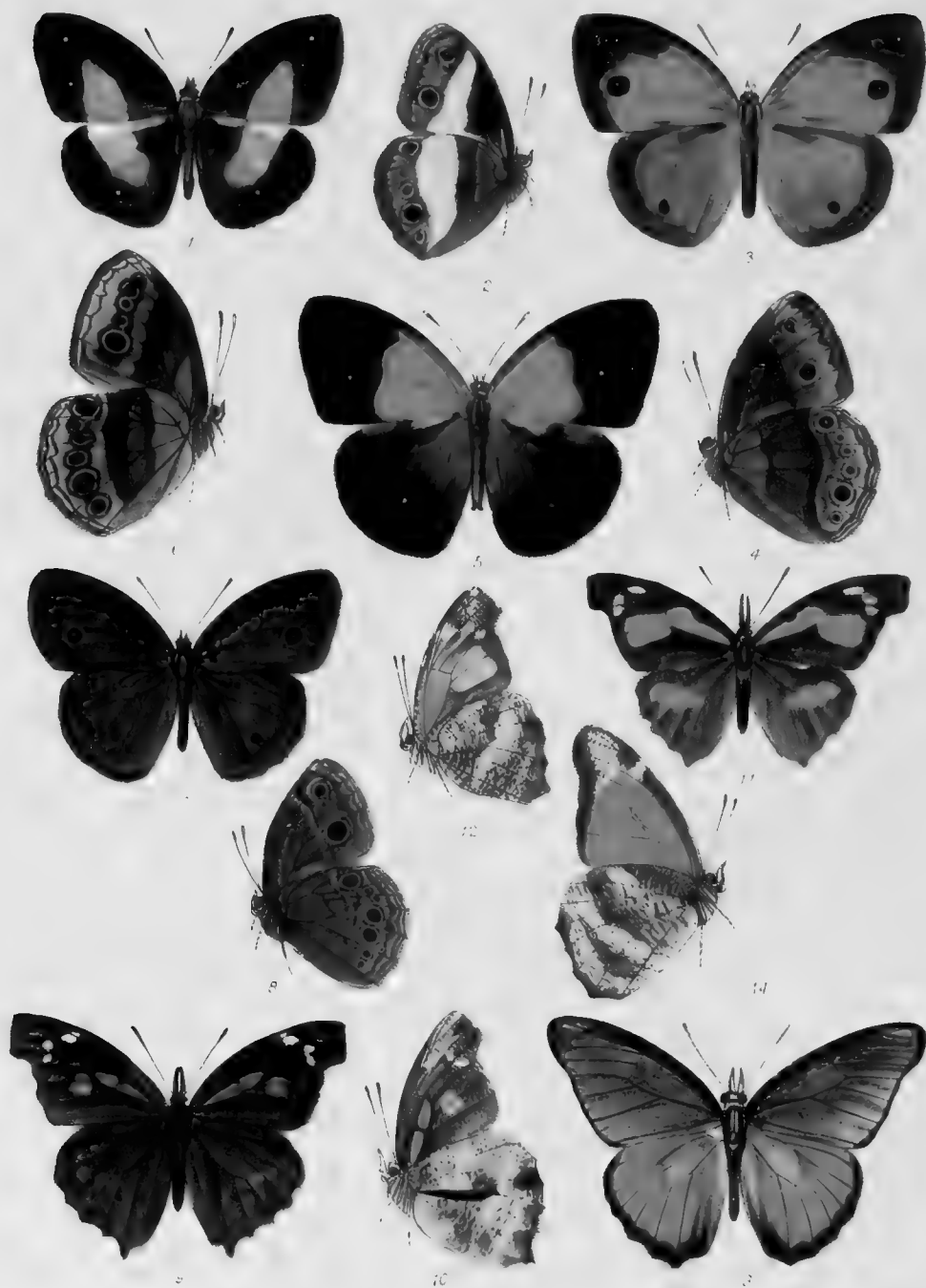


Fig. 13. 14. 15. 16.

West New Guinea, 11. 12.

1 2	MYCALESTIS	VALERIANA	9 10	LIBYTHEA	ANCOATA
3 4	"	NERITA	11 12	"	T. MANDANA
5 6	"	MILENA	13 14	"	PULCHRA
7 8	"	PERCA			

SATYRIDÆ.

MYCALESIS. V.

XV.—MYCALESIS VALERIANA. ♂. FIGS. 1, 2.

Exp. $1\frac{5}{8}$ inches.

Male. UPPERSIDE. Both wings brown, crossed by a pale brown band extending from the uppermost median nervule a little beyond the end of the cell of the anterior to a little beyond the lowest median nervule on the posterior wings; the band is narrowest at the top, widening rapidly to the inner margin of the anterior, and continuing across the posterior wings of the same width, but narrowing slightly towards its end. On the anterior wings beyond the band are two black spots centred by small white dots, one subapical, the other between the two lowest median nervules; on the posterior wings are two similar spots surrounded by dark fulvous rings, the uppermost between the two lowest median nervules, the other, nearer the margin, a little before the anal angle.

UNDERSIDE. Differs from *M. Valeria*, Grose-Smith, on the anterior wings in the white band being very much wider towards the inner margin, in having two obscure spots between the two large spots, and in the absence of the dark bar which crosses the cell of *M. Valeria* to the inner margin. On the posterior wings the band crossing the disc is white instead of stramineous, the spots beyond the band are surrounded by separate narrow fulvous rings, not confluent as in *M. Valeria*, and the space beyond the band to the outer margin is of the same colour as the basal part of the wings and not crossed by a stramineous area as in *M. Valeria*.

Hab. Kapa-Kapa, British New Guinea.

In the Collection of Mr. Grose-Smith.

This butterfly also resembles *M. Barbara*, Grose-Smith, on the upperside, but the bands are much paler and wider.

XVI.—MYCALESIS NERIDA. ♂. FIGS. 3, 4.

UPPERSIDE. Both wings rather dull brown, resembling *M. Tagala*, Feld., in colour, but the apical half and outer margin are darker and more broadly brown. In the dark apical area is a black spot centred by a white dot, and between the two lowest median nervules is a large similar spot; the spot in the same position in *M. Tagala* is half the size, and is not centred by a white dot. The posterior wings are broadly margined by darker brown, and between the two lowest median nervules is a black spot centred by a white dot and surrounded by a fulvous ring, followed by a dark brown ring.

The UNDERSIDE resembles *M. Ethiops*, Feld., but the outer third of both wings is darker. On the anterior wings there are only two spots, one subapical, the other between the two lowest median nervules. On the posterior wings the spots in the row crossing the disc are the same in number, but more distinctly marked, surrounded by brighter fulvous rings and centred by more conspicuous white dots, the dark bar crossing the disc is curved in the middle instead of straight as in *M. Ethiops*.

Hab. British New Guinea.

In Mr. Grose-Smith's Collection.

Though I have compared this butterfly on the upperside with *M. Tagala*, it is not at all allied to it; the shape is very different, the wings being rounder and less produced at the apices, and it is smaller in size. It belongs to the group of *M. Remulia*, Cram. (Genus *Mydosama*, Moore).

XVII.—MYCALESIS MILENA. ♂. FIGS. 5, 6.

Male. UPPERSIDE. Both wings resemble *M. Bazochii*, Guér., but the basal halves are brighter brown and more extended.

UNDERSIDE. The bands crossing the middle of the wings are broader and darker; the rows of spots beyond the bands are situated in a broader dark area, and situated further from the bands, and the ground coloration is greyer and less rufous brown.

Hab. Kapaor, Dutch New Guinea.

In Mr. Grose-Smith's Collection.

On the upperside this species looks like a large form of *M. Cacodæmon*, Kirsch, but on the underside it is quite distinct from that species.

XVIII.—MYCALESIS PERSA. FIGS. 7, 8.

Mycalesis Persa, H. Grose-Smith, "Novitates Zoologicae," Vol. II., p. 81 (June, 1895).

Exp. $1\frac{5}{8}$ inches.

Male. UPPERSIDE. Differs from *M. Perseus*, Fabr., in both wings being more rufous brown, and in the ocellus on the upperside of the anterior wings being larger and surrounded by a bright rufous ring.

On the UNDERSIDE there are only two ocelli on the anterior wings, one near the apex, the other between the two lowest median nervules, each surrounded by a pale brown outer ring; the pale streak which crosses the wings is much more obscure and nearer to the ocelli than in *M. Perseus*. On the posterior wings the pale streak is likewise more obscure and nearer to the row of ocelli, and instead of being straight, as in *M. Perseus*, it curves outwardly between the lowest subcostal and upper median nervules.

The *female* differs from the male in being paler, and the ocellus on the upper side of the anterior wings being larger.

Hab. Dili (Timor) (Doherty).

In the Collections of the Hon. Walter Rothschild and Mr. Grose-Smith.

A series of seven specimens, none of which differ from the type.

LIBYTHEIDÆ.

LIBYTHEA.

I.—LIBYTHEA ANCOATA. FIGS. 9, 10.

Libythea Ancoata, H. Grose-Smith, "Annals and Mag. of Nat. Hist.," Ser. 6, p. 126 (January, 1891).

Exp. $1\frac{1}{2}$ inches.

UPPERSIDE resembles *L. Cinyras*, Trim., from Mauritius, but the spots in the cell and on posterior wings smaller and greyer. It differs from *L. Labdaca*, Westw., in the absence of the brownish-grey patch between the lowest median nervule and submedian nervule on the anterior wings, and on the posterior wings in the band of spots below the cell being very nearly obsolete. On the underside of the anterior wings the brown spaces within the cell are narrower than in either *L. Cinyras* or *L. Labdaca*. On the posterior wings at the lower side of the cell from the base to beyond its end is a somewhat curved greyish-black band followed at the middle of the outer margin by a similar patch of the same colour.

Hab. N.W. Coast of Madagascar (Last).

In the Collection of Mr. Grose-Smith.

II.—LIBYTHEA TSIANDAVA. FIGS. 11, 12.

Libythea Tsiandava, H. Grose-Smith, "Annals and Mag. Nat. Hist.," Ser. 6, p. 81 (July, 1891).

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE. Anterior wings resemble those of *L. Laius*, Trimen, but the fulvous longitudinal bar in the cell is uninterrupted and wider than in *Laius*, and the subovate discal spot, which is traversed by the second median nervule, is larger. On the posterior wings it also resembles *L. Laius*, but the small ochreous spot of *L. Laius* above the second subcostal nervule is absent, and

in the straight longitudinal bar of four contiguous spots beyond the middle the second spot is the largest, instead of the first, as in *L. Laius*.

On the UNDERSIDE it is paler and browner than *L. Laius*, and on the anterior wings the pale fulvous colouring of the bar and spots extends below the cell and over nearly the whole of the central area of the wings.

Hab. Mahobo, N.W. Coast of Madagascar (Last).

In the Collection of Mr. Grose-Smith.

III.—LIBYTHEA PULCHRA. FIGS. 13, 14.

Libythea Pulchra, Butl., "Annals Nat. Hist.," Ser. 5, Vol. X., p. 149 (1882).

Exp. 2 inches.

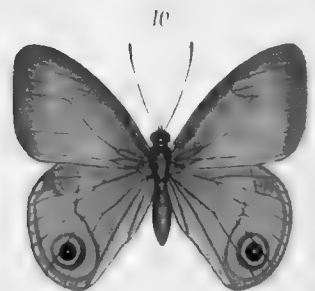
"Allied to *L. Geoffroyi* (Godt.) and *L. Antipoda* (Boisd.). Wings above bright lilac, the whole disc of the secondaries bright fulvous orange, borders of all the wings narrowly dark brown; veins brown; thorax blue-green, tips of palpi and shoulders brown; abdomen brown, bluish at base, greyish-brown spotted with black at the sides. Primaries below ochraceous, apical area brown crossed by a vague band of greyish lilac; borders brown, the costa traversed by darker striations; secondaries rosy lilacine, alternating with four bands of bronze-brown and striated with the same colour; body ashy-whitish, the pectus bluish at the sides."

Hab. New Britain.

In the Collections of Mr. Grose-Smith and others.



SLATKIN, 1949
 K. A. ARGYROLYMPHA



SLATKIN, 1949

ARGYROLYMPHA

ARGYROLYMPHA

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SATYRIDÆ.

RAGADIA.

1.—RAGADIA ANNULATA. ♂. FIGS. 1, 2. ♀. FIG. 3.

Ragadia Annulata, H. Grose Smith, "Annals and Magazine of Natural History," series 5, vol. 20, p. 435 (1887).

Exp. $1\frac{1}{2}$ to $1\frac{3}{4}$ inches.

Male. UPPERSIDE cream-colour, with the base, costal margin, including nearly the whole cell of the anterior wings, and hind margin broadly ashy-brown; nervures blackish. Towards the base are traces of a buff band, running upwards, but not extending to the subcostal nervure. Just beyond the cell of the anterior wings, the pale part of the wing is intersected by an oblique black stripe; on the anterior wings it ceases below the submedian nervure, where it is connected by a slight blackish stripe with the dark base of the wing; on the posterior wings it narrows to the fork of the median nervure, where it ceases; but rather nearer the base, an ill-defined narrower dark stripe runs between the median and submedian nervure.

UNDERSIDE crossed by alternate brown- and cream-coloured stripes; costa and hind margins marked with a dark line at the base of the fringes, which is bordered within with a buff one. Base dark, with a slight buff stripe, becoming paler and more linear outwards, below the subcostal nervure of the anterior wings; there are three oblique cream-coloured bands across both wings, ceasing at the subcostal nervure of the anterior wings, where the first is much narrowed; beyond the third band, is a brown band containing a row of black eyes with bluish-white pupils, and in pale yellowish rings; on the anterior wings there are eight between the nervures, the two lowest smaller than the others, and placed between the lowest median nervule and the submedian nervure; on the hind wings are five eyes, the first between the subcostal nervules, the second very large, oval, with two pupils, between the discocellular nervule and the middle median nervule; the third between the middle and lowest median nervules;

the fourth and fifth smaller, between the lowest median nervule and the submedian nervure.

Body mouse-colour, abdomen and beneath yellowish-white, palpi very hairy, grey in front, antennæ slender, with a broad rufous ring towards the extremity.

Female. UPPERSIDE as in the male, but paler, the cream-coloured part of the wing more extended, and the central dark stripe more slender, ceasing on the anterior wings at the submedian nervure, and unconnected with the dusky base; on the posterior wings it is much narrower, but continuous as far as the submedian nervure.

UNDERSIDE as in the male.

Hab. Kina Balu, North Borneo (Whitehead).

In the Collections of Dr. Staudinger, Mr. Whitehead, Mr. H. Grose Smith, and others.

ARGYRONYPHA.

Mathew, "Proceedings of the Zoological Society of London," 1886, p. 346.

All the species of this genus at present known are from the Solomon Islands.

I.—ARGYRONYPHA RUBIANENSIS. ♂. FIGS. 4, 5.

Argyronympha Rubianensis, H. Grose Smith, "Entomologist's Monthly Magazine," vol. 25, p. 299 (1889).

Exp. $1\frac{1}{2}$ inches.

Male. UPPERSIDE. Anterior wings tawny, with a brown border covering the outer half of the wing towards the costa, beyond the cell, and extending more narrowly towards the base on the outer half of the inner margin. The tawny part of the wing extends furthest towards the hind margin on both sides of the middle median nervule. Fringes slightly varied with grey. Posterior wings tawny about the end of the cell, shading inwards into yellowish-green, and outwards into a brown border; the costa and inner margin are lighter brown.

Fringes slightly varied with grey.

UNDERSIDE. Anterior wings tawny, shading into darker towards the margins; inner margin grey, slightly silvery towards the base. Towards the hind margin are four stripes, the first silvery, running upwards from the sub-

median nervure, and tapering to below the upper median nervule, where it disappears; its lower end is bordered within by a black blotch; the second band is ferruginous-tawny outside, above the lowest median nervule, and on the inside, but not quite to the costa, straw-yellow; between the lowest median nervule and the submedian nervure it is black; outside this is a longer silvery stripe, extending to the submedian nervure, and slightly incurved on the costa; and this is followed by a ferruginous-tawny line, slightly varied with yellow, and narrowly bordered with an interrupted black line on each side; this is followed by the buff fringes, and terminates towards the anal angle in a whitish spot, followed by a black one. Posterior wings broadly greyish-white, shading into yellowish towards the costa; towards the end of the cell this terminates in a nearly straight ferruginous-brown stripe, followed by two equal silvery curves, meeting and projecting outwards in the middle. These curves are nearly continuous with a broad silvery submarginal stripe, edged outside with a narrow black line, and followed by a tawny stripe, and a black line at the base of the grey fringes. The nervures on all the outer half of the wing are narrowly black. The silvery curves on the basal side are more or less continuous with the submarginal markings, dividing the interior of the outer half of the underside of the hind wings into two nearly equal ovals. Towards the apex, the submarginal tawny stripe, and the silvery band within it, curve round, forming an almost closed oval, within which, between the subcostal nervules, is a black blotch, followed by a tawny stripe outside edged below with silvery; below these marks the inner part of the oval is black, shading opposite the cell into brown; outside this is a conspicuous straw-coloured blotch, outside which are three black blotches, more or less separated with straw-colour. The inner oval is filled up with a very large black spot, slightly concave below, and enclosed above and on the sides by a broad horse-shoe shaped stripe; this is narrowly edged with black, and enclosed on the inner side with rufous; the upper and lower parts are bordered with straw-colour within the silvery curves, from which the lower part is separated by a ferruginous stripe.

Antennæ long, slender, banded with white below; palpi very large, ascending, pale green, fringed with black hairs in front; body greenish-brown above, white below; legs lined with black above.

Hab. Rubiana Lagoon, Solomon Islands (Woodford).

In the Collection of Mr. H. Grose Smith.

Resembles *A. Ugiensis*, Mathew, above, and *A. Pulchra*, Mathew, below. Captains Cayley Webster and Cotton have recently sent specimens of this species from the Island of New Georgia.

II.—ARGYRONYMPHA ULAVA. ♀. FIGS. 6, 7.

Argyronympha Ulava, H. Grose Smith, "Entomologist's Monthly Magazine," vol. 25, p. 299 (1889).

Exp. $1\frac{3}{4}$ inches.

UPPERSIDE dusky greyish-brown, anterior wings inclining to greenish-tawny from the base to beyond the middle.

UNDERSIDE. Anterior wings yellowish-grey, the marginal markings nearly as in *A. Rubianensis*, but much paler; inner margin paler than the rest of the basal area, but with no silvery colouring.

Posterior wings with the basal half yellowish-grey towards the costa, and paler towards the inner margin. Marginal markings nearly as in *A. Rubianensis*, but paler, and with the metallic markings slightly gilded.

Antennæ black above, slightly marked with white below, tip ferruginous; palpi white, lined with black above and below, thorax greenish, front legs white, hinder legs brownish-grey, lined with black; abdomen brown above, and white below.

Hab. Ulava Island (Woodford).

In the Collections of the Hon. Walter Rothschild and Mr. H. Grose Smith.

Allied to *A. Pulchra*, Mathew.

A good series of both sexes has recently been received from Captains Cayley Webster and Cotton from the Islands of Ysabel and Alu. The sexes do not differ, the male being rather the smaller.

HYPOCYSTA.

I.—HYPOCYSTA IRIUS. VAR. ♂. FIGS. 8, 9. ♀. FIG. 10.

Papilio Irius, Fabr., "Systema Entomologiæ," p. 487, n. 196 (1775); Donovan, "Insects of New Holland," pl. 28, fig. 1 (1805).

Exp. ♂. $1\frac{1}{4}$ inches; ♀. $1\frac{1}{2}$ inches.

Male. UPPERSIDE. Anterior wings light brown, with a tawny band on the disc, rising from the submedian nervure where it is broadest, and running upwards below and beyond the cell, but not extending to the

costa. Posterior wings light brown, with a brighter tawny submarginal band, not extending to any of the margins, and bordered within by a rectangular dark line. At its upper and outer extremity is a round blackish spot, indistinctly ocellated, and surrounded by an outer brown ring, nearly obsolete below. Towards the anal angle is a large black eye, with a white pupil, in a broad tawny ring, nearly cut off from the submarginal band by an outer brown ring, obsolete below. Above, it is narrowly interrupted, and there is a short brown dash just beyond this break, but nearer to the hind margin.

UNDERSIDE yellowish-grey, with short brown lines at one-third of the length, anterior wings with the tawny part of the disc paler and more suffused; beyond the cell is a blackish line, slightly zigzag above, and there is a submarginal row of intersected brown and pale yellowish triangles, followed by a dull orange line between two brown ones; but all these markings are more or less ill-defined and indistinct. Posterior wings with the marginal markings bordered on the inside by a more continuous brown line; the eyes are both well-marked; they are black, with white pupils, and with yellow rings, surrounded with brown, dull silvery, and partly narrow brown rings again; the lower eye is surmounted by a prolongation of the silvery ring, containing a smaller yellow spot in a brown ring. The space round the lower eye is yellowish on the inner side, shading into brown on the outer side. The silvery ring of the upper eye is connected with a submarginal silvery line, edged within with a brown line, and followed by a dull orange line, edged on both sides with very narrow black lines; fringes yellowish-grey.

Body brown, head mostly white, palpi with black hairs in front.

Female. UPPERSIDE nearly as in the male, but with the tawny markings more extended, and entirely enclosing the lower eye on the posterior wings; the small dark dash above it is wanting.

UNDERSIDE. Anterior wings nearly as in the male; posterior wings with the eyes placed on a pale yellowish submarginal area; they are smaller, and more isolated; the dull silvery rings are broader, and entirely detached, and the small central spot is disconnected from the others, and is silvery grey, with a brown pupil and outer ring.

The fore wings are rather long, narrow, and subtriangular in the male; in the female they are broader. The type in the Banksian Collection is a male, and differs somewhat on the underside from the specimens here figured. On the anterior wings beneath is a small subapical eye. It is black with a white pupil, and enclosed in a pale yellow and narrow outer brown ring. The

underside of the hind wings resembles that of the female here figured; the three eyes are separate and distinct on a yellow submarginal area, which shades into brown beyond them. The British Museum possesses two other male specimens, agreeing with the Fabrician type, from Cooktown.

Hab. Australia.

In the Collection of the British Museum (including the type in the Banksian Collection); and in those of Dr. Staudinger and Mr. H. Grose Smith.



S. A. D. W. E. I. S. S. .

PEDALIODES I



M. Horman. Engr. del. et lith.

Hanhart imp.

1, 2 PEDALIODES PALEOPUS
3, 4 " " PALEOPUS
5 " " PERPERNA

6 PEDALIODES PERPERNA.
7, 8 " " PHANOCLEA.
9, 10 " " PRAXIA.

SATYRIDÆ.

PEDALIODES. I.

I.—PEDALIODES PALADES ♂. FIGS. 1, 2.

Pronophila Palades, Hewitson, "Entomologist's Monthly Magazine," vol. 14, p. 227 (1878).

Exp. $2\frac{1}{10}$ inches.

UPPERSIDE dark rufous-brown. Anterior wings very slightly scalloped, with a white or creamy band running from the costa just outside the cell, and slightly obliquely as far as the lowest median nervule. Posterior wings much more distinctly scalloped, with a white patch on the disk between the cell and the hind margin, but nearest to the former, ending in a point on the outer side.

UNDERSIDE darker brown. Anterior wings with the white band ending in a point below the lowest median nervule; between this and the apex is a curved row of four small white dots. There is also a small white spot just before the extremity of the cell, and a short white dash on the inner margin just before the hinder angle of the wing. Hind margin with a band of darker brown, shading into the ground-colour towards the anal angle. Posterior wings dark brown, divided towards the hind margin by a reddish-grey band containing a row of five small white spots. On the outside this is dentated; on the inner side it is bordered by a rather irregular white band running from the inner margin rather above the anal angle, and ending above the middle white spot in a narrow curved and pointed projection.

Hab. Ecuador (Buckley).

In the Hewitson Collection, and in the Collections of the British Museum and Mr. H. Grose Smith.

II.—PEDALIODES PALÆPOLIS. ♂. FIGS. 3, 4.

Pedaliodes Palæpolis, Hewitson, "Entomologist's Monthly Magazine," vol. 14, p. 227 (1878).

Exp. $1\frac{3}{4}$ – $2\frac{1}{4}$ inches.

Male. UPPERSIDE dark rufous-brown. Anterior wings slightly dentated, with the costa beyond the middle irrorated with white. A white band, divided into four large and two small spots by the nervures, runs slightly obliquely from the costa, just beyond the cell, nearly to the middle median nervule. Posterior wings more strongly dentated. All the wings with the incisions slightly marked with grey.

UNDERSIDE. Anterior wings as above, but with the white band more continuous and rather larger. Costa irrorated with grey; a large subapical violet-grey patch; below which is a white dot in a round black spot without an iris; below the white band is a similar one. Posterior wings of a more reddish-brown, with a broad grey submarginal band, bordered on the inside by a zigzag black line, but suffused on the outside, where it is bordered by a row of small white spots. Below the costa it is interrupted, but on the costa it is represented by an inner whitish spot, and a large grey apical blotch.

Female similar, but the white spots on the outer half of the costa of the anterior wings more distinct, and the pale band on the under side of the posterior wings hardly irrorated with white.

Hab. Bolivia (Buckley).

In the Hewitson Collection (British Museum), and in that of Mr. H. Grose Smith.

There are three males and one female in the Hewitson Collection. The two unfigured males more resemble the female on the undersurface than does the specimen figured, but apparently belong to the same species. In one of them the white band on the anterior wings is narrower, and the small spots nearest the costa are obsolete above.

III.—PEDALIODES PELINÆA. ♂. FIG. 5.

Pronophila Pelinæa, Hewitson, "Entomologist's Monthly Magazine," vol. 14, p. 227 (1878).

Exp. $2\frac{1}{4}$ – $2\frac{1}{2}$ inches.

Male. UPPERSIDE dark brown, incisions slightly marked with grey, anterior wings with a white subapical streak, slightly suffused, and divided into four spots by the nervures.

UNDERSIDE rufous-brown. Anterior wings with the lower part of the subapical streak more continuous, and forming a thick curve from the apex to the upper median nervule; it also extends a little inwards below the costa. Its outer portions are much irrorated with black. There are also two red spots, one at two-thirds of the length of the cell, and the other between the two upper submedian nervules. Posterior wings obsoletely undulated with darker brown, and irrorated with white, the most distinct white markings being towards the costa and hind margin. Two red streaks above each of the submedian nervules.

Anterior wings subdentate; posterior wings strongly dentated.

Female nearly as in the male, but with the white subapical spots of the anterior wings suffused into a continuous band; on the underside its upper part is ochreous-yellow, and extends to the apex; the first white division is truncated on the outside, but the rest is broad, extending nearly to the hind margin, but obliquely narrows to half the length, below which only faint traces of it exist nearly as far as the hinder angle. On the posterior wings there is a small pure white spot towards the anal angle.

Hab. Bolivia (Buckley).

In the Hewitson Collection (British Museum).

IV.—PEDALIODES PERPERNA. ♂. FIG. 6.

Pronophila Perperna, Hewitson, "Transactions of the Entomological Society of London," ser. 3, vol. i. p. 16 (1862).

Pronophila Satyroides, Felder, "Reise der Österreichischen Fregatte Novora," Lepidoptera Rhopalocera, p. 469 (1867).

Exp. 2– $2\frac{1}{4}$ inches.

UPPERSIDE brown, with a slightly rufous tinge in the male; anterior wings with a round black spot towards the hinder angle, which is distinctly pupilled with white in the female.

UNDERSIDE rufous-brown irrorated with brown, and with an indistinct rufous marginal band, festooned within on the posterior wings; fringes dark brown. Anterior wings with a white spot near the apex, and a black eye, pupilled with white, and partly bordered with red on the inside towards the hinder angle. There is also a red band in the cell, and a submarginal grey band; besides some grey markings near the costa, but these are all nearly obsolete in the male. Posterior wings with a grey submarginal band, reduced, in the male, to a row of pale spots on its inner side, and a black eye with a white pupil towards the hinder angle.

Anterior wings subdentate; posterior wings slightly dentated.

Hab. Caraccas, Venezuela.

In the Hewitson Collection (British Museum). The type is simply labelled, "S. America"; but Felder states the locality of the species.

V.—PEDALIODES PHANOCLEA. ♂. Figs. 7, 8.

Pronophila Phanoclea, Hewitson, "Equatorial Lepidoptera," p. 90 (1877).

Exp. about 2 inches.

Male. UPPERSIDE brown, anterior wings rounded, posterior wings rather long, angulated, dentated and bordered with reddish between the median nervules and the anal angle; the reddish colouring is continued for one-fourth of the length of the inner margin.

UNDERSIDE brown; anterior wings with the base and apex paler, and a short white streak running from the costa a little beyond the cell. Posterior wings light brown, irrorated with rufous and grey; a paler band, whitish above, and reddish below, and throwing a short branch outwards about the middle, running from the middle of the costa to two-thirds of the length of the inner margin; an outer row of five small white spots surrounded with blackish.

Hab. Jima, Ecuador (Buckley).

In the Hewitson Collection (British Museum).

VI.—PEDALIODES PRAXIA. ♂. FIGS. 9, 10.

Pronophila Praxia, Hewitson, "Equatorial Lepidoptera," p. 91 (1877).

Exp. $2\frac{1}{4}$ inches.

Male. UPPERSIDE dark brown, regularly dentated, with a slightly darker marginal band; anterior wings with a curved reddish band, divided into spots by the nervures, running from the costa to the submedian nervure; it is continued on the posterior wings by a short, narrow, angulated stripe a little beyond the cell.

UNDERSIDE. Anterior wings irrorated with grey, a large red subtriangular spot before the end of the cell, the red band marked with white on the costa, and much broader than above towards the inner margin. Posterior wings dark brown, irrorated with white, the costa marked with pure white dots, the largest of which about the middle, commences an irregular stripe, formed of ochreous blotches irrorated with rufous, one continuous with the white spot, and the other beyond the cell, connected by a nearly obsolete reddish line; these markings correspond to the short red stripe of the upper side.

Hab. Jima, Ecuador (Buckley).

In the Hewitson Collection (British Museum) and in that of Mr. H. Grose Smith.



SATYRIDÆ.
PEDALIODES II.



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1, 2. PEDALIODES PORIMA 6. PEDALIODES FERRATILIS.
4, 5. " PHERETIADES. 3. " OBSCURA.
7, 8. PEDALIODES PHRASA.

SATYRIDÆ.

PEDALIODES. II.

VII.—PEDALIODES PORIMA. (♀ ?). Figs. 1, 2.

Pedaloides Porima, Staudinger, MS.

Exp. $2\frac{1}{4}$ inches.

Female (?). UPPERSIDE dark brown, anterior wings rounded at the apex, the costa and incisions narrowly grey, an oblique white band running from below the costa at two-thirds of its length to below the middle median nervule, but not reaching the hind margin; hind wings more strongly dentated, with the costa more broadly grey, and the fringes narrowly but more continuously grey.

UNDERSIDE lighter brown, anterior wings with costa speckled with grey, and fringes and hind margin likewise marked with grey; posterior wings irrorated with rufous and grey, fringes grey and white, and a row of five submarginal white spots between the nervures, the middle one larger and yellower than the others. Antennæ black, rufous towards the base; palpi grey.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose Smith. Nearest allied to *P. Peucestas*, Hewitson. We have retained Dr. Staudinger's name for this species, though it is objectionable, as Hewitson had previously described and figured a somewhat similar species under the name of *P. Porina*.

VIII.—PEDALIODES PHERETIADES. ♂. Figs. 4, 5.

Exp. $2\frac{3}{4}$ inches.

Male. UPPERSIDE brown, the fringes varied with grey; anterior wings with a short obsolete band of grey dusting half-way between the cell and the hind margin; posterior wings with the costa varied with grey.

UNDERSIDE brown. Anterior wings with a short curved white band between the cell and the hind margin, terminating in an irregular rusty blotch between

the two upper median nervules. Posterior wings slightly speckled with white, and with very faint traces of a submarginal band paler than the ground colour.

Antennæ blackish above, rufous beneath. Palpi black, with a yellow line on the sides.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose Smith.

Allied to *P. Praxithea*, Hew.

IX.—PEDALIODES FERRATILIS. ♂. Fig. 6.

Pedaliodes Ferratilis, Butler, "Annals and Magazine of Natural History," ser. 4, vol. 12, p. 221 (1873).

Exp. $2\frac{1}{4}$ inches.

Male. UPPERSIDE brown, fringes varied with grey, anterior wings lighter towards the hind margin.

UNDERSIDE lighter brown, posterior wings, especially towards the anal angle, and upper half of anterior wings within the fringes, more or less rufous; a few submarginal white dots, one or two towards the apex of anterior wings, and three between the intermediate nervules on the posterior wings, the largest between the two lowest submedian nervules.

Hab. Bolivia, Peru.

In the Collections of the British Museum, of Dr. Staudinger, and H. Grose Smith.

Allied to *P. Polusca*, Hewitson.

X.—PEDALOIDES OBSCURA. ♂. Fig. 3.

Exp. 2 inches.

Male. UPPERSIDE brown, anterior wings paler towards the hind margin, and with the incisions marked with white.

UNDERSIDE brown, tinged with rufous on the posterior wings, especially towards the anal angle. Two white spots, the lowest largest, between the submedian nervules of the posterior wings; and one or two very small obsolete yellowish submarginal dots towards the costa of both the anterior and posterior wings.

Antennæ black above, ringed with white, rufous below.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose Smith.

Allied to *P. Polusca*, Hewitson.

XI.—PEDALIODES PHRASA. ♂. Figs. 7, 8.

Pedaliodes Phrasa, Staudinger, MS.

Exp. $2\frac{1}{4}$ inches.

Male. UPPERSIDE. Very similar to the last species, but with the costa of anterior wings slightly irrorated with grey, and the apex of the posterior wings more so.

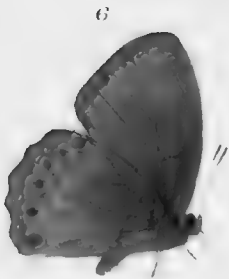
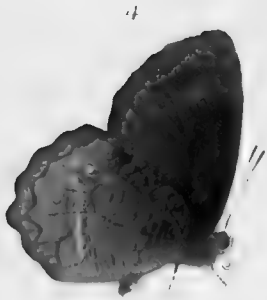
UNDERSIDE similar, but with no rufous shading, instead of which there are faint traces of a submarginal band marked in grey dusting, on the upper part of the anterior wings, and of an interrupted whitish stripe on the posterior wings within the submarginal spots.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose Smith.



SATYRIDAE
PEDALIONES III.



PEDALION CRATA PEDALION SUBRUFESCENS
MYALESCIDES SUBPUNCTATA
CYRNE

SATYRIDÆ.

PEDALIODES. III.

XII.—PEDALIODES ORNATA. ♂. FIGS. 1, 2.

Exp. about 2 inches.

Male. UPPERSIDE brown, darkest towards the base. Anterior wings with a tawny band on the disc narrowed and curved inwards towards the costa. Outside this the wing is paler. The hind wings are paler beyond the cell, especially towards the apex, where the costa is bordered with a yellowish-grey line.

UNDERSIDE. Anterior wings dark brown from the base to beyond the middle. Apical area much paler than above; the wings are crossed beyond the middle by a yellow band broader than above, and shading into greyish towards the costa; beyond the band the wings are light brownish-grey, which is sharply divided from the darker brown border. Posterior wings with the dark basal portion projected outwards in the middle; the light portion of the wing between this and the inner zigzag limit of the dark border consists of a narrow inner yellowish-grey portion, and an outer pinkish-grey portion; a little beyond the paler part stands a row of five white dots, partly surrounded with blackish.

Wings slightly dentated, fringes dark grey, antennæ brown.

Hab. Bolivia.

In the Collection of Mr. H. Grose Smith.

Allied to *P. Pelinna*, Hewitson.

XIII.—PEDALIODES MYCALESOIDES. ♀. FIG. 3.

Pronophila Mycalesoides, Felder, "Reise der österreichischen Fregatte Novara um die Erde," Lepidoptera, III., p. 473 n., 809 (1867).

Exp. 2 inches.

Female. UPPERSIDE slightly ferruginous-brown, somewhat paler beyond

the middle, with a large black eye with a white pupil situate on the anterior wings, between the two lowest median nervules, and enclosed in a ferruginous ring.

UNDERSIDE. Anterior wings brown, reticulated with ferruginous and with an indistinct ferruginous band crossing the middle of the cell. Beyond the middle the wings are crossed from the costa to the submedian nervure by a broad sinuate brownish-grey band, becoming rufous on its inner side, in which are situate several indistinct pale spots and the large black eye with white pupil as on the upper side.

Fringes black, with the incisions marked with grey. Posterior wings darker, with two black eyes pupilled with white, towards the anal angle, that nearest the angle smaller than the other. An indistinct pale band, mottled with yellowish-grey scales, crosses the discal area.

Antennæ brown, blackish towards the tip. Wings much dentated, especially the posterior wings.

Hab. Bogota (Felder) ; Costa Rica (Underwood).

In the Collections of Mr. H. Grose Smith and others.

The specimen figured is much rubbed. This species is allied to *P. Perperna*, Hewitson ; the specimen from Costa Rica recorded under that name by Messrs. Godman and Salvin ("Biol. Centr. Amer.," Lep. Rhop., I., p. 104), probably belongs to the species we have figured, though the description does not quite correspond.

XIV.—PEDALIODES LORA. ♂. FIG. 4.

Pedaliodes Lora, Staudinger, MS.

Male. UPPERSIDE dark brown ; incisions of the moderately dentated wings pale grey, lightest on the anterior wings.

UNDERSIDE. Anterior wings paler brown, with three small white dots, and some slight ferruginous markings towards the apex, especially round the upper dot ; beyond the cell is a slight grey streak extending from the costa to near the middle median nervule. Posterior wings reddish-brown, darkest towards the base, where it is strongly reticulated with brown ; along the inner margin and towards the anal angle it shades into warm ferruginous. There are also some scattered grey mottlings in various parts of the wing. There are four white spots running from the costa, beyond the level of the cell, the two middle spots larger than the others ; from the third a suffused grey streak, shading into

ferruginous at the end, runs obliquely towards the inner margin. There is also an ill-defined, zigzag, dark submarginal line outside the spots.

Hab. Bolivia.

In the Collections of Dr. Staudinger and of Mr. H. Grose Smith.

This species is allied to *P. Cocytia*, Felder.

XV.—PEDALIODES SUBRUFESCENS. ♂. FIG. 5.

Exp. $1\frac{1}{2}$ inches.

Male. UPPERSIDE brown, with a slight ferruginous lustre.

UNDERSIDE brown, the greater part of the posterior wings strongly tinged with ferruginous. Three rather indistinct and somewhat zigzag dark lines run across all the wings, one in the cell; one beyond, which becomes broad and straight and a darker reddish than the ground-colour on the posterior wings; and one submarginal, edged outside with ferruginous on the anterior wings, where it is followed by a ferruginous line at the base of the grey fringes. On the posterior wings these two ferruginous lines are nearly conterminous, being only separated by a slight grey line on the upper half; the inner edge is also grey towards the costa. There are four minute white spots surrounded with black between the broad reddish line and the zigzag submarginal line.

Antennæ tawny, tipped with black; wings moderately dentated.

Hab. Costa Rica (Underwood).

In the Collection of Mr. H. Grose Smith.

This species is very near *P. Hulda*, Butler and Druce, and *P. Phyllalia*, Hewitson.

XVI.—PEDALIODES SUBPUNCTATA. ♂. FIG. 6.

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE dark brown.

UNDERSIDE brown. Anterior wings with four dark transverse lines, one crossing the cell, one beyond the cell, and two submarginal. Posterior wings darker brown, with a slight reddish shade; a dark transverse band in the cell; a broad ferruginous zigzag stripe beyond the cell, narrowly bordered with brown on each side, beyond which is a greyish-brown area; and two ferruginous subterminal lines separated by a greyish-brown line. On the broad greyish-

brown space is a row of six small black eyes with white pupils in tawny rings, the second obsolete.

Antennæ brown above, and tawny, tipped with black, below. Wings moderately dentated.

Hab. Bolivia (Buckley).

In the Collection of Mr. H. Grose Smith.

Somewhat resembles *P. Phyllalia* (Hewitson), and *P. Calisto* (Felder), but without the silvery or leaden markings beneath on these species.

XVII.—PEDALIODES CYRENE. ♂. FIGS. 7, 8.

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE ferruginous-brown, with a row of large red spots between the nervures on the disc of all the wings, the third spot placed nearest to the outer margin.

UNDERSIDE, anterior wings as above, but paler, reddish about the lower part of the cell, and clouded with grey towards the apex. Posterior wings brown, mottled with grey, the band of spots yellowish-grey, dotted with red, ill-defined towards the costa; nearer the base is a row of four lighter spots; the outer part of the wing is indistinctly banded and mottled with brown, yellowish-grey, and reddish; and there are four white dots on the disc between the nervures.

Wings moderately dentated, anterior wings rather pointed at the apex, and with the hind margin slightly convex below it.

Hab. Ecuador (Buckley).

In the Collection of Mr. H. Grose Smith.

Allied to *P. Parrhoebia* (Hewitson).

XVIII.—PEDALIODES CALISTO. ♂. FIGS. 9, 10.

Pronophila Calisto (Felder), "Reise der österreichischen Fregatte Novara um die Erde," Lepidoptera, III., p. 472 n., 807 (1867).

Exp. about 2 inches.

Male. UPPERSIDE ferruginous-brown, the hind margins paler. Two very indistinct submarginal darker lines, most distinct on the posterior wings, where, towards the anal angle, they are bordered on the outside with ferruginous. Fringes darker brown.

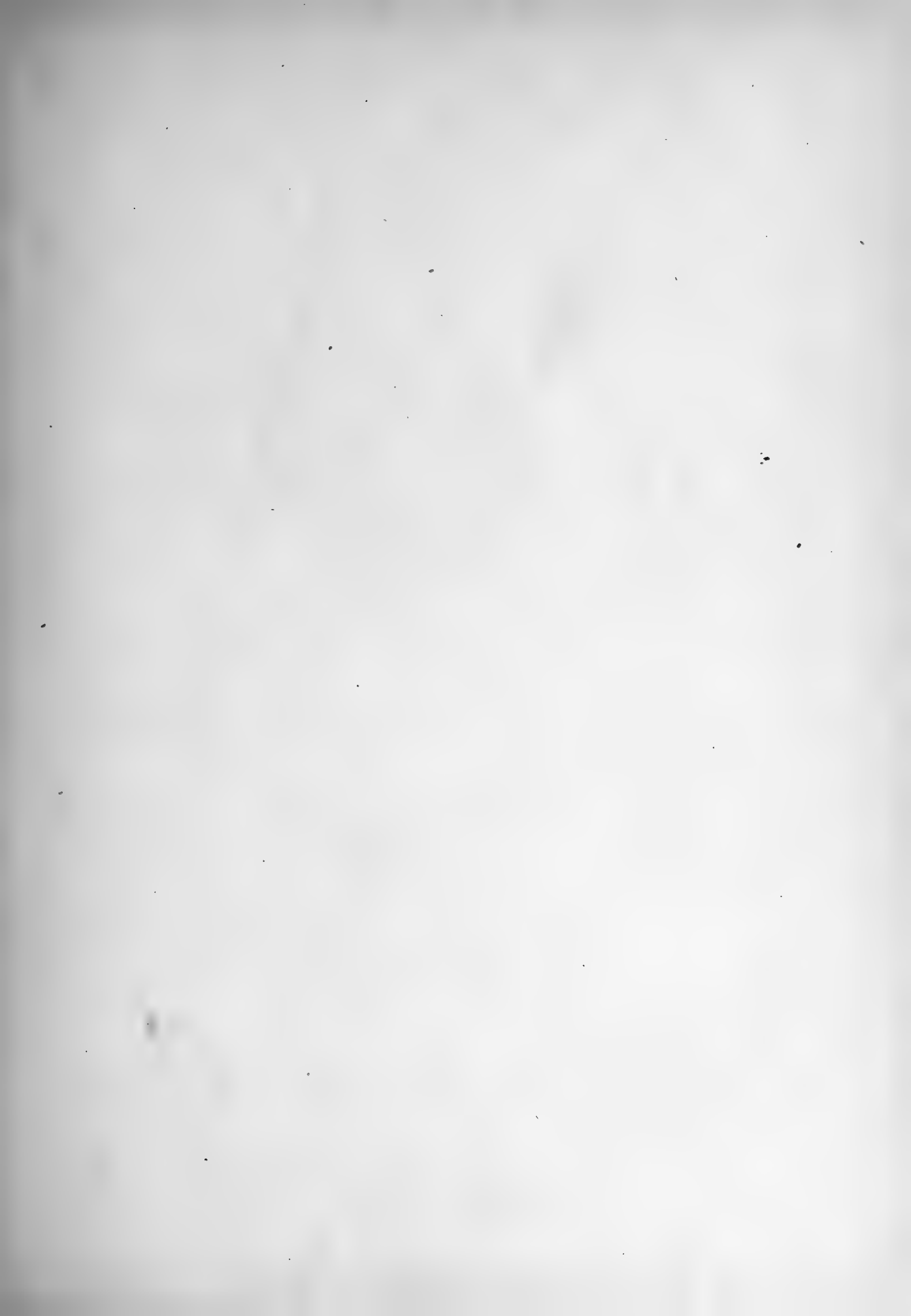
UNDERSIDE. Anterior wings darker brown than above, with two not very distinct blackish transverse lines running from the subcostal to the median nervure, one, just beyond the middle of the cell, and one beyond, which is deeply zigzag towards the inner margin. The submarginal lines are more distinct than on the upperside, the inner one is rather broad and slightly sinuate, the outer one narrow, gradually curved. Posterior wings dark brown, with a submarginal row of six black eyes with white pupils enclosed by ochreous and brown rings; these rest on a silvery band, bordered outside by a rather broad sinuated ferruginous line edged on both sides by a narrow black line; then follows a narrow silvery line, separated by a black line from another ferruginous line at the base of the blackish fringes. On the inner side of the eyes, except the first and second from the costa, they are bordered within by a prolongation of the silvery band in the form of triangles, edged above by ferruginous angles, which are followed above, towards the inner margin, by an irregular space irrorated with yellowish-rufous scales; across the cell runs an indistinct waved blackish line.

Antennæ ferruginous, tipped with black. Anterior wings with the hind margin slightly projecting at one-third of its length; posterior wings regularly dentated.

Hab. Bogota (Felder); Ecuador (Buckley).

In the Collection of Mr. H. Grose Smith and others.

This species considerably resembles *P. Catargyrea* (Staudinger), in which the metallic band is more regular, and all the spots are placed well within it.



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SATYRIDÆ.

PEDALIODES. IV.

XIX.—PEDALIODES PLOTINELLA. FIGS. 3, 4.

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE differs from *P. Plotina*, Hew., in the marginal tawny band on the posterior wings, towards the anal angle, being narrower and more abbreviated. UNDERSIDE. The anterior wings are more unicolorous, the pale band across the wings beyond the middle of *P. Plotina* being scarcely visible; on the posterior wings the pale tawny band, which crosses the disc of *P. Plotina* from a little above the anal angle to the discoidal nervule, is broken up into spots, which do not extend beyond the upper median nervule, above which is a single white spot, instead of the row of white spots surrounded by black on the disc of *P. Plotina*; the ground-colour of the wings is also darker rufous-brown than in *P. Plotina*.

Hab. Merida.

In the Collections of Dr. Staudinger and H. Grose-Smith.

XX.—PEDALIODES HOPFFERI. FIGS. 5, 6.

Exp. $1\frac{7}{8}$ inches.

Male. UPPERSIDE. Anterior wings dark brown. Posterior wings with a bright tawny band on the disc, widest in the middle, the inner edge of which is nearly straight, except at its upper end, where it curves sharply inwards; the outer edge of the band is deeply indented between the veins. UNDERSIDE. Anterior wings uniform dark brown, except towards the apex, where it is dusted with grey scales, a subapical minute white dot. Posterior wings with the disc crossed by a bright fuscous band dusted with rufous scales from the inner margin to the discoidal nervule, outside which is a pale lilacine band, in which is a row

of white spots surrounded by black rings, two patches of grey scales in the cell and a third patch of similar scales beyond, towards the costal margin.

Hab. Cuzco, Peru.

In the Collections of Dr. Staudinger and H. Grose-Smith.

XXI.—PEDALIODES PHAZANIA. FIG. 7.

Male. UPPERSIDE. Both wings dark brown, slightly paler towards the outer margins.

UNDERSIDE. Anterior wings brown, dusted with greyish scales towards the outer margin and a narrow transverse grey streak on the costa beyond the middle. Posterior wings with a white band on the disc from the inner margin, where it is widest, thence gradually narrowing to the discoidal nervule, a few narrow brown streaks and scales in the white area, a patch of grey scales on the costal margin beyond the middle; outside the white band is a pale greyish-brown band, very irregular on its outer edge; in the band is a row of white dots surrounded by black rings.

Hab. Ecuador (Buckley).

In Mr. Grose-Smith's Collection.

XXII.—PEDALIODES POLEMON. FIG. 8.

Male. UPPERSIDE. Both wings dark brown.

UNDERSIDE. Anterior wings with a sub-triangular patch of grey scales on the costa, a little before the apex, and a minute white dot below it.

Posterior wings with a white band on the disc from the inner margin, where it is very broad, thence narrowing and becoming obsolete a little beyond the upper median nervule; the inner edge of the white band is deeply indented between the veins, its outer edge is very diffused, and there are patches of grey scales above and below the band, the former extending across the wings to the costal margin about its middle; a rather large white spot between the two lowest median nervules below the band.

Hab. Merida.

In Mr. Grose-Smith's Collection.

Very close to *Pedaliodes Japhleta*, Eutl., but without the rufous markings on the underside of the anterior wings.

GENUS OXEOSCHISTUS.

Oxeoschistus, Butl., "Annals and Mag. Nat. Hist.," Series 3, Vol. XX., p. 268 (1867).

I.—OXEOSCHISTUS PHALSI. ♂. FIGS. 1, 2.

Exp. $2\frac{1}{4}$ inches.

Male. UPPERSIDE closely resembles *O. Rogersi*, Godm. and Salv. ("Proceedings Zoological Society," 1878, p. 267), but the anterior wings are less elongate, and the spots in the submarginal row on the disc are smaller and rounder; on the posterior wings the outer margin is less emarginate.

UNDERSIDE likewise closely resembles *O. Rogersi*, the submarginal row of spots being less developed on the anterior wings; the posterior wings are paler and more rufous, and the three rows of silvery-white spots which cross the wings are less conspicuous, some of them being nearly obsolete.

Hab. Colombia.

In the Collections of Dr. Staudinger and H. Grose-Smith.



SACTIPIETAE.

PEDALIODES V.



1711. 10. 10. 10.

Wm. Newman. 1861.

PEDAL. DES. PUSCILLA.
" BURANCIEN.
" PEDAL. "

4. 5. PEDALIODES. PETE. DILL.
6. " PLANTIA.
8. 9. " LAM. PULC.

SATYRIDÆ.

PEDALIODES. V.

XXIII.—PEDALIODES PHRASINA. FIG. 1.

Pedaliodes Phrasina.

Exp. $2\frac{3}{8}$ inches.

UPPERSIDE. Both wings brown, slightly bronzed in certain lights. Anterior wings with the basal area below the cell velvety black, and a narrow outer marginal area in which is an irroration of paler greyish-brown scales.

UNDERSIDE resembles *Pedaliodes Hewitsoni*, Stgr., but differs from it in the absence of the dark rufous basal area on the anterior wings of that species, and the anterior wings are crossed beyond the middle by a paler brown broad band irrorated by grey scales with a central row of white dots between the veins; an indistinct band of grey scales crosses the middle of the cell. The posterior wings are browner than in *P. Hewitsoni*, the central dark band is defined outwardly by irregular patches of greyish-brown scales, beyond which is an indistinct band slightly paler than the ground-colour, in which is situate a row of white dots between the veins, several of which are nearly obsolete.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose-Smith (type).

XXIV.—PEDALIODES PHRASICLEA. FIG. 2.

Pedaliodes Phrasiclea.

Exp. $2\frac{1}{2}$ inches.

UPPERSIDE scarcely differs from *P. Phrasina*.

UNDERSIDE. Anterior wings with the greyish band which crosses the cell wider and more distinct, and the discal band beyond the middle is rather narrower. On the posterior wings the central dark band is rather more regular

outwardly, and is not defined outwardly by patches of greyish-brown scales. The outer margin of the posterior wings is rather less indented between the veins.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose-Smith (type).

XXV.—PEDALIODES PHRASIS. FIG. 3.

Pedaliodes Phrasis.

Exp. $2\frac{1}{4}$ inches.

UPPERSIDE. Very close to *P. Phrasiclea*, but with the basal half of the anterior wings and the whole of the posterior wings darker than in that species.

UNDERSIDE. Both wings darker than in *P. Phrasiclea*, with scarcely any trace of the greyish band crossing the cell on the anterior, or of the central band crossing the wings on the posterior wings.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose-Smith (type).

XXVI.—PEDALIODES PETRONIUS. FIGS. 4, 5.

Pedaliodes Petronius.

Exp. $2\frac{1}{2}$ inches.

UPPERSIDE, with the basal two-thirds of the anterior and the whole of the posterior wings, dark velvety brown; the apical third of the anterior wings much paler brown.

UNDERSIDE. Both wings resemble *P. Mycalesoides*, Feld., but differ in the following respects:—On the anterior wings the discal band in which the spots are situate is much paler, better defined, and without rufous colouring.

On the posterior wings the discal pale band is also better defined, and on the costal margin of the inner edge of the band is a rather conspicuous, irregular, pale brownish-white streak. The outer margin is more emarginate than in *P. Mycalesoides*.

Hab. Valdevia, Colombia (Pratt).

In the Collection of Mr. Grose-Smith.

P. Petronius is much larger than *P. Mycalesoides*.

XXVII.—PEDALIODES PLAUTIUS. FIGS. 6, 7.

Pedaliodes Plautius.

Exp. $2\frac{1}{4}$ inches.

UPPERSIDE. Both wings olivaceous-brown, with a diffused elongate brownish-white patch on the costa a little before the apex of the anterior wings.

UNDERSIDE. Anterior wings darker olivaceous-brown than the posterior wings, with the brownish-white patch at the apex much larger than on the upperside, with irregular brown markings on the outer margin; the pale area extends along the outer margin rather narrowly and becomes obsolete on the lowest median nervule. Posterior wings with a large subquadrate pale olivaceous-brown area across the median nervules and several others on the disc towards the apex, all more or less densely irrorated by brown scales; the space along the abdominal margin and within the cell is also irrorated by greyish or pale brown scales and there is a whitish patch on the costal margin a little beyond the middle.

Hab. Bolivia (Buckley).

In the Collection of Mr. Grose-Smith.

XXVIII.—PEDALIODES PALADES. FIGS. 8, 9.

Pronophila Palades, Hew., "Entomologists' Monthly Magazine," Vol. XIV., p. 227 (1877-78).

Exp. 2 inches.

UPPERSIDE dark black-brown. Anterior wing crossed by a broad band of white, from the costal margin at its middle to the first branch of the median nervure, straight on its outer border, dentated on its inner margin. Posterior wing with an oblong white, nearly central spot, the outer margin dentate.

UNDERSIDE paler brown. Both wings with a submarginal linear band of black, undulate on the posterior wing. Anterior wing with the white band as above and a pale brown subapical spot undulated with dark brown. Posterior wing with the white spot as above, except that it is extended to the abdominal margin, followed by a band of grey-brown, traversed by a series of minute white spots."

Hab. Ecuador (Buckley).

In the Collections of the British Museum, the late Mr. Hewitson, and Mr. Grose-Smith.

On comparing the insect figured on the Plate under the name of "*Palæpolis*" with the Hewitson Collection and the descriptions of *Pronophila Palæpolis* and *P. Palades* by Hewitson, *in loco citato*, it becomes apparent that Hewitson fell into some mistake.

The two specimens labelled in his collection as "*Palades*" do not agree with his description of that species, which expressly mentions "an oblong white, nearly central spot" on the posterior wings (which is absent from these specimens), and the locality labels are also different, being "Bolivia," not Ecuador.

The specimen in the Hewitson Collection labelled "*Palæpolis*" agrees fairly well with his description of *P. Palades* and also agrees with the specimen under the name of *Palæpolis* in the Plate (Figs. 8, 9), and the locality is identical.

I venture to assume that Hewitson accidentally changed the labels, and accordingly I attribute the name *Palades* to the species here figured, though it stands in the Hewitson Collection under the name of *Palæpolis*.

"*Pronophila Palades*," figured by Mr. Hewitson in Vol. V. of "Exotic Butterflies" on the Plate of *Pronophila* VI., Figs. 36, 39, belongs to the genus *Lasiophila*, Feld., and is a variety of *L. Circe*, Feld.

POSTSCRIPT.—On the eve of the publication of this Plate, I have discovered that "*Pedaliodes Palades*" was figured in the Plate of *Pedaliodes* 1, in Vol. II. of "*Rhopalocera Exotica*," with a description by Mr. Kirby. I have to apologise for the oversight of including this species in the present Plate.

In placing the name of "*P. Palæpolis*" upon this Plate, I followed the name in which the specimen stands in the Hewitson Collection, and I only became aware of Mr. Hewitson's mistake, after the Plate was ready for publication, on referring to Mr. Hewitson's descriptions of the two species, the names of which have apparently been transposed in his collection.

Mr. Kirby's descriptions of *P. Palades* and *P. Palæpolis* do not refer to the discrepancies existing between the Hewitson descriptions and the specimens, as named, in the Hewitson Collection.



SATURNIÆ.
PRONOPHILA. I. — OXEOSCHISTUS. I.



Howe and Bennett del. 1869

West Newmarch imp

1. PRONOPHILA MENA.
2. " SAGARTIA.
3. " CHYPROTA.

- 4 5. OXEOSCHISTUS CHYPROTA.
6. " EREBUS.



SATYRIDÆ.

PRONOPHILA. I.

I.—PRONOPHILA MENA. FIG. 1.

Exp. $2\frac{5}{8}$ inches.

Male. UPPERSIDE. Both wings uniform brown.

UNDERSIDE. Anterior wings brown, with a large sub-triangular costal patch of grey scales, partly clouded with the ground-colour, towards the apex, and a round rufous spot on the disc between the two upper median nervules. Posterior wings crossed, about the middle, by an irregular brown band, widest on the inner margin and gradually narrowing to the costa, outside this band is a broad irregular grey band, clouded by brown scales, in which are situated an indistinct row of dark ocelli; the grey band does not extend to the outer margin (which is brown) and is deeply indented outwardly between the veins; the grey scales extend over the outer portion of the cell, and thence, more or less densely, over the basal part of the wings.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose-Smith (type).

II.—PRONOPHILA SAGARTIA. FIG. 2.

Exp. $2\frac{1}{2}$ inches.

Male. UPPERSIDE. Both wings olivaceous-brown.

UNDERSIDE. Anterior wings greyish-brown, with an indistinct irregular paler band crossing the outer third of the disc from the costa to the lowest median nervule, in which is situate a row of indistinct dark spots. Posterior wings crossed before the middle by an irregular greyish-brown band, broadly

bordered on either side by silvery-grey; a diffused dark olivaceous-brown band crosses the disc beyond the cell, in which are situate a row of white dots broadly surrounded by black; the silvery-grey of the middle of the wings extends outwardly round the dark discal band, which is followed on the outer margin by a broad indented olivaceous-brown band.

Hab. Colombia.

In the Collections of Dr. Staudinger and H. Grose-Smith (type).

OXEOSCHISTUS.

II.—OXEOSCHISTUS COTHONIDES. FIG. 3.

Oxeoschistus Cothonides, H. Grose-Smith, "Annals and Mag. of Nat. Hist.," Ser. 6, Vol. XVIII., p. 241 (September, 1896).

Exp. $2\frac{1}{2}$ inches.

UPPERSIDE. Anterior wings resemble *O. Cothon*, Salvin. Posterior wings, discal area bright tawny, with a broad marginal border of dark brown, irregularly indented by the tawny area between the veins; a dark brown spot centred by a white dot situate in the tawny area between the two lowest median nervules, and two similar contiguous spots above the anal angle, as in *O. Cothon*. The discal area becomes darker tawny-brown towards the base and inner margin, the darker area extending transversely from the middle of the costa and crossing the cell a little beyond its middle towards the anal angle, where it merges in the dark brown marginal border. The female resembles the male.

The UNDERSIDE does not differ appreciably from *O. Cothon*.

Hab. Cartago, Costa Rica.

In the Collection of Mr. Grose-Smith.

Described from four specimens. At first I thought this insect might be the female of *O. Cothon*; but possessing a female of *O. Cothon* which does not differ from the male, I conclude that the very distinct colouring of the upperside of the posterior wings justifies me in describing it as distinct from *O. Cothon*. The specimens were sent by Mr. Underwood with a good series of *O. Cothon* from the same locality.

III.—OXEOSCHISTUS CHYPROTA. FIGS. 4, 5.

Exp. $2\frac{5}{8}$ inches.

Male. UPPERSIDE rufous-brown; anterior wings darker in the middle, with the disc crossed by a row of paler rufous-brown spots, the two middle spots the smallest; posterior wings with a row of rufous-brown sub-cordate spots crossing the disc, gradually increasing in size towards the anal angle, the two lowest lunules being centred by large dark brown spots, the extremities of the lowest median nervule and submedian nervure with rufous lunules on the outer margin.

UNDERSIDE. Both wings closely resemble those of *O. Pwania*, Hew. ; but on the anterior wings the silvery-grey subapical patch is more extended, and on the posterior wings the silver lunular markings on the disc towards the anal angle are much narrower.

Hab. Cuzco, Peru.

In the Collections of Dr. Staudinger and H. Grose-Smith (type).

IV.—OXEOSCHISTUS EREBUS. FIG. 6.

Exp. $2\frac{7}{8}$ inches.

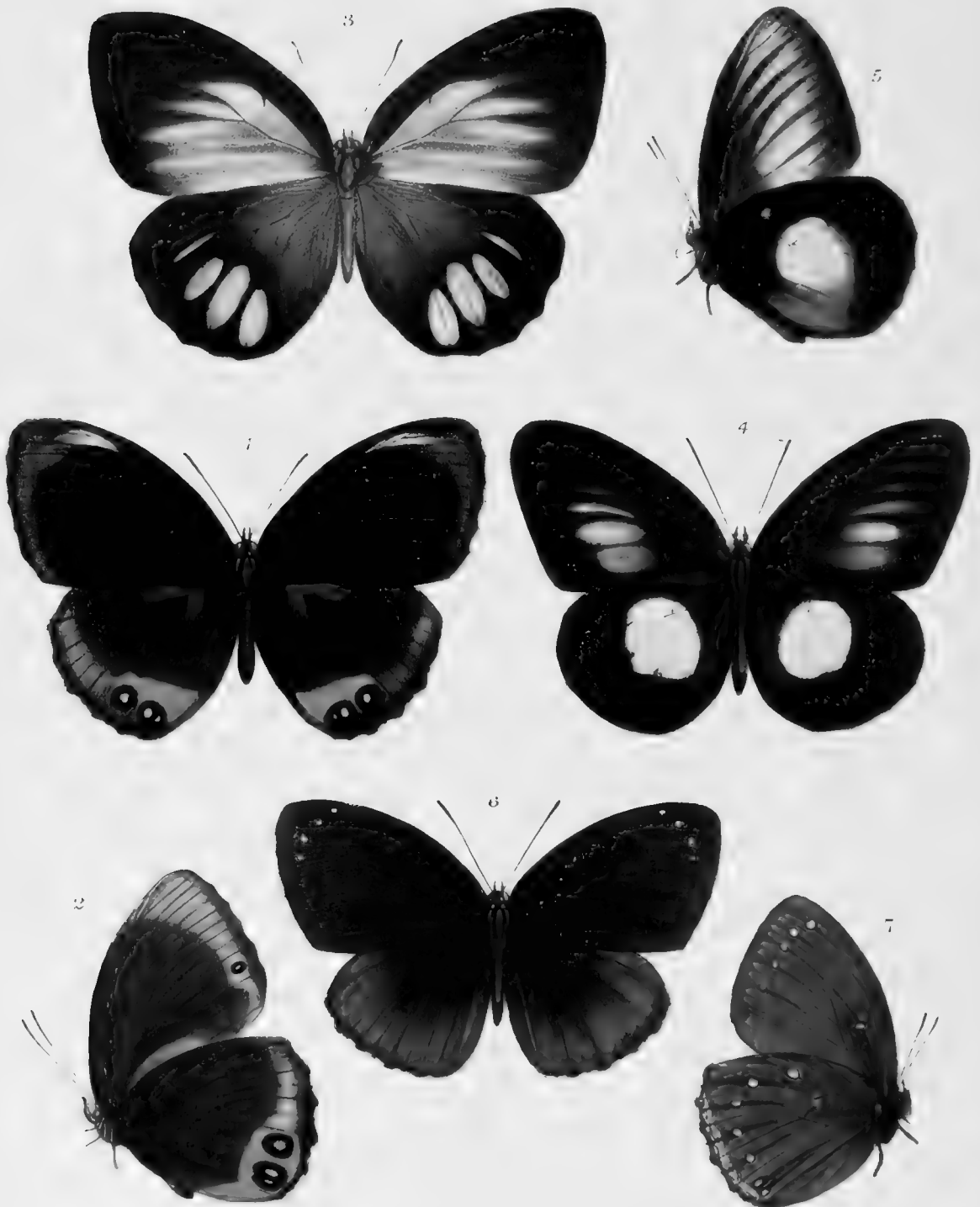
Male. UPPERSIDE dark brown.

UNDERSIDE. Anterior wings closely resemble those of *O. Chypota*. Posterior wings also very similar, but darker, and the median band is broader ; both wings are broader and rounder, and the anterior wings are less concave on the outer margin.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose-Smith (type).

ENTOMOLOGICAL INDEX
 ELYMNIA
 ELYMNIA I



From the collection of the

West Newman, 1884

1, 2 ELYMNIA GLAUCOPIS ♂, 4, 5 ELYMNIA PARADOXA ♂,
 3 " " ♀, 6, 7 " HLOPHERNES ♂.

NYMPHALIDÆ.—ELYMNIINÆ.

ELYMNIAS. I.

I.—ELYMNIAS GLAUCOPIS. ♂. FIGS. 1, 2. ♀. FIG. 3.

Elymnias Glaucopis, Staudinger, "Deutsche Entomologische Zeitschrift: Iris (Dresden)," VII., p. 116 (July 14, 1894).

Elymnias Melanippe, H. Grose Smith, "Novitates Zoologicæ," I., p. 587 (July 20, 1894).

Exp. ♂ $2\frac{7}{8}$ inches; ♀ $3\frac{1}{8}$ inches.

Male. UPPERSIDE. Both wings brownish-velvety black, shading into dark steel-blue towards the apex and outer margins. On the anterior wings the inner edge of the steel-blue area before the apex is traversed near the costal margin by an oblique grey streak, which is not continued round the wings, as in *E. Agondas*, Boisd. On the posterior wings between the veins towards the anal angle are two large black spots a little above the outer margin, the spot between the submedian nervure and lowest median nervule being centred with two clusters of blue scales, the spot in the next interspace being centred with one larger cluster of blue scales; above these spots, and partly surrounding them, is a broad orange-fulvous band, which extends from near the inner margin to the middle median nervule, and is widest towards the inner margin. A brush of greyish-brown hair towards the base of the posterior wings.

UNDERSIDE. Both wings brown. On the anterior wings is a broad greyish-brown ill-defined band along the outer margin, which somewhat recedes from the outer margin towards the outer angle; in the pale band between the two lowest median nervules is a black spot centred by a blue streak. The posterior wings are crossed, a little before the outer margin, from the apex to the middle median nervule, by a similar greyish-brown band, narrowest at the apex; from that nervule to the inner margin the band becomes wider, and is bright orange-brown, in which are situate the two black spots, as on the upper side, but the central blue spots are larger, somewhat iridescent, and centred with whitish

scales. Antennæ, head, thorax, and abdomen black; proboscis and tip of abdomen beneath tawny; legs grey beneath.

Female with the upper part of the cell, the costal margin, and apical third obliquely blackish-brown, tinged in certain lights with dull purple; the lower two-thirds of the cell, a space beyond it, and the rest of the disc white, more or less densely irrorated with dusky-brown scales; the white area radiates between the veins and invades the dark brown area of the apical third. The posterior wings are brownish-black, also tinged with dull purple; across the disc are three very large iridescent blue ovate spots, of which the middle spot is the largest, situate between the second median nervule and the submedian nervure; above the former is an elongate streak of blue scales; the basal third of the wings is densely clothed with long brown hairs.

On the UNDERSIDE the anterior wings resemble the upperside, but the white area is more extended and less densely irrorated with grey scales. On the posterior wings a white patch, densely irrorated with brown scales, crosses the outer half of the cell, and extends on each side, beyond the cell and along the inner margin respectively; the discal area is nearly covered by a large brown patch, darker than the rest of the wings, in which are situate the three large ovate blue spots, the uppermost of which is considerably reduced in size; the median nervures between the spots and the submedian nervule are orange-brown, which colour on the lowest median nervule expands at its outer end, but does not extend round the spots; on each side of these spots between the veins are several other streaks of blue scales. Antennæ black; abdomen fulvous.

Body black; proboscis and whole of abdomen (except the tip beneath, which is black), tawny.

Hab. Saddleberg, German New Guinea (Webster, 1894); Finsch Harbour, German New Guinea (Kubary).

In the Collections of the Hon. W. Rothschild, Dr. O. Staudinger, and Mr. H. Grose Smith.

Two males and two females were captured by Captain Webster. It is nearest to *E. Agondas*, Boisdu., and *E. Melane*, Hew., to the males of each of which species it has considerable resemblance. The situation of the pale area on the anterior wings and the size of the blue spots on the posterior wings of the female are very distinct from the females of either of these species.

Dr. Staudinger, who describes the female only, thinks it may be a variety of *E. Bioculatus*, Westw. (*néc* Guér.), which he thinks may be distinct from *E. Agondas*. He also calls attention to the resemblance of this group of species to the females of *Tenaris Charops*, Westw., and *T. Dina*, Staud.

II.—ELYMNIAΣ PARADOXA. ♂. FIGS. 4, 5.

Elymnias Paradoxa, Staudinger, "Deutsche Entomologische Zeitschrift: Iris (Dresden)," VII., p. 116 (July 14, 1894).

Elymnias Erastus, H. Grose Smith, "Novitates Zoologicæ," I., p. 588 (July 20, 1894).

Exp. $2\frac{3}{4}$ inches.

Male. **UPPERSIDE**. Anterior wings greenish-black, the middle of the disc between the uppermost median nervule and the submedian nervule is occupied by an irregular white space, divided by the black veins, and densely irrorated with black scales. Posterior wings very dark brown, shading near the outer margin into the same colour as the anterior wings; in the middle of the wings is a large round white patch, which slightly invades the end of the cell.

UNDERSIDE. Anterior wings greyish-brown, the apex and the middle of the wings to the middle of the inner margin crossed by a broad brownish-white band, irrorated with dark scales, and divided by the nervures, which are rather broadly greyish-brown. Below the base of the median nervure is a bluish-white scaleless stripe. Posterior wings dark velvety-brown, with the pale central patch, which is brownish-white, shaded externally with rufous-brown scales; the space beyond the patch to the inner margin is also rufous-brown, which colour extends broadly from the anal angle along the inner margin to half its length; between the subcostal nervules, a little before their junction with the subcostal nervure, is an oval, bluish-white spot. The outer margins of both wings are scarcely emarginate.

Body black; proboscis yellow.

Hab. Saddleberg, German New Guinea (Webster); Constantine Harbour, German New Guinea (Kubary).

In the Collections of Dr. O. Staudinger and Mr. H. Grose Smith.

Not nearly allied to any known species. Dr. Staudinger remarks on its superficial resemblance to *Mynes Australis*, Guér. He describes a female, which does not appear to differ from the male here figured, except in its slightly greater expanse (72 millim.).

III.—ELYMNIAΣ HOLOPHERNES. ♂. FIGS. 6, 7.

Dyctis Holofernes, Butler, "Annals and Magazine of Natural History," ser. 5, vol. X., p. 42 (July, 1882).

Exp. nearly 3 inches.

UPPERSIDE smoky-brown, paler towards the borders of the posterior wings; fringes varied with grey. Anterior wings with four bluish-white dots towards the apex.

UNDERSIDE paler rufous-brown, with submarginal white spots, and other white spots towards the base, at the ends of the discoidal cells, and below the basal fifth of the costa of the anterior wings. The fringes are more distinctly spotted with white than above.

Orbits white, head and pectus spotted with white, extremity of abdomen tawny beneath.

Hab. Duke-of-York Island (Godeffroy Museum); New Britain (Webster).

In the Collections of the British Museum (type: from Godeffroy Museum), and others.



NYMPHALIDÆ.

ELYMNIINÆ.

ELYMNIA II. BRUASA I.



From the collection of the

West Newman

1. ELYMNIA MELANTHUS

45 BRUASA BORNEENSIS

2

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NYMPHALIDÆ.—ELYMNIINÆ.

ELYMNIAS. II.

IV.—ELYMNIAS MELANTHES. ♂. FIGS. 1, 2. ♀. FIG. 3.

Elymnias Melanthes, H. Grose-Smith, "Annals and Magazine of Natural History," Series 6, Vol. XIX., p. 178 (February, 1897).

Exp. $3\frac{3}{8}$ inches.

Male. UPPERSIDE dark fuliginous brown, slightly paler towards the apex of the anterior and the basal third of the posterior wings; on the anterior wings is a curved streak of fuliginous dark blue, slightly metallic, commencing on the costa a little above the end of the cell, but not extending to the apex or outer margin, and gradually fading towards the outer angle. The posterior wings are tinged with the same colour in the apical region, and there are two black spots centred with the same colour on the disc towards the anal angle; one of these spots is situate between the two lowest submedian nervules, and is larger than the other spot, which is situate on the other side of the lowest median nervule.

UNDERSIDE dusky brown; anterior wings rather densely irrorated with pale scales beyond the cell and in the apical area, the posterior wings being also sparsely dusted with similar scales. Posterior wings with a large, irregular, oblong ovate, fulvous patch extending from a little beyond the middle submedian nervule to near the anal angle; in the patch are situate two large black spots, centred with blue spots, which are double in the lower spot; the fulvous patch is more oblique than in *M. Agondas*, Boisd., and other allied species. Abdomen fulvous.

Female. Both wings white; anterior wings with costal margin broadly dusky brown, becoming broader at the apex, thence narrowing along the outer margin, and ceasing below the upper median nervule; inside the dusky brown apical area is a faint indication in certain lights of the blue metallic coloration of the male. Posterior wings with the costal and apical margins broadly dusky brown, which extends partly round the outer margin and becomes dusted with

white scales towards the anal angle; there are two large diffused dusky spots towards the anal angle, larger than in the male and centred with large blue spots, those in the lower spot being double; on the disc towards the apex is an indistinct streak of slightly metallic blue, corresponding with the like coloration of the male.

UNDERSIDE white, with similar dusky brown marginal bands and veins of that colour; on the posterior wings the dusky brown spots are represented by a large oblong ovate fulvous patch, in which are situate two black spots centred with blue as in the male.

Hab. Woodlark Island (Meek).

In the Collection of Mr. H. Grose-Smith and others.

Nearest to *E. Agondas*, Boisd., and *E. Glaucopsis*, Stgr.

GENUS BRUASA.

Bruasa, Moore, "Lepidoptera Indica," page 164.

I.—BRUASA BORNEENSIS. ♂. FIGS. 4, 5. ♀. FIG. 6.

Elymnias Borneensis, H. Grose-Smith, "Annals and Magazine of Natural History," Series 6, Vol. X., p. 428 (December, 1892).

Exp. $2\frac{3}{8}$ inches.

Male. UPPERSIDE. Anterior wings dark brown, brightly suffused with purple, with three elongate blue spots situate between the discoidal and upper median nervules; the purple reflection extends to the outer angle, but not quite to the apex of the wings. Posterior wings brown, slightly suffused with purple over the whole extent of the wings.

UNDERSIDE. Both wings resemble those of *E. Penanga*, Westwood, and *E. Sumatrana*, Wallace, but are darker, and on the posterior wings there is no submarginal row of spots.

Female. UPPERSIDE. Anterior wings greyish-brown, faintly dull blue at the base; an oblique irregular ill-defined greyish-white band from the middle of the costal margin to near the middle of the hind margin, and a similar band below it, extending into the cell, and on either side of the lowest median nervule nearly to the outer angle. Posterior wings greyish-white, slightly tinged with pink,

with a broad greyish-brown streak from the base along the upper subcostal nervule and thence round the outer margin.

UNDERSIDE. Both wings brown, irregularly mottled with grey, the grey bands and patch on the upperside being indistinctly represented.

Hab. North-east Borneo.

In the Collection of Mr. H. Grose-Smith.

This species is near to *B. Penanga* (*E. Mehida*, Hew.), but the male differs in having only three instead of five blue spots on the anterior wings, and the female is quite distinct from the female of that species.

In the Hewitson Collection at the British Museum the male of this species is placed with specimens of *E. Mehida*, and the female is unnamed.



ATLAS FAUNA

MORPHINÆ

1896



1896

1896

NYMPHALIDÆ.—MORPHINÆ.

MORPHO. I.

I.—MORPHO HELENA. ♂. Figs. 1, 2.

Morpho Rhetenor, var. *Helena*, Staudinger, "Entomologische Nachrichten," vol. 16, p. 107 (1890).

Exp. $5\frac{1}{4}$ to $5\frac{3}{4}$ inches.

Male. Anterior wings shaped as in *M. Rhetenor*, Cram., with which species the markings of the undersurface likewise agree.

UPPERSIDE bright sky-blue, as in *M. Cypris*, Westw. (not greenish-blue, as in *M. Rhetenor*), with a broad yellowish-white common band, rather broader than in *M. Cypris*, and sometimes uninterrupted. Fringes very short, checquered with black and white at long intervals. There are some whitish spots above the band towards the costa of the anterior wings. The largest of these is triangular, and is placed between the first and second discocellular nervules. Between these and the hind margin are six small white spots, as in *M. Rhetenor*, var. *Cacica*, Staud.,* which are sometimes nearly obsolete. On the posterior wings, the white band runs straight to the light yellowish-grey inner margin.

UNDERSIDE. Differs from that of *M. Rhetenor* by the broad whitish central band on all the wings; in *Rhetenor* it is violet-grey on the posterior wings, and represented only by three dirty yellow spots on the anterior wings. Var. *Cacica* has a continuous yellowish band on the anterior wings. There are some whitish spots in the cell of the anterior wings, variable in size in *M. Helena*, as likewise in *M. Rhetenor*. (In the specimen figured, only one is present.) The ocellated spots are bordered with brown, and arranged as in *M. Rhetenor*, but are liable to become obsolete. The apical portion of the anterior wings and the dark border of all the wings is more suffused with whitish-grey than in *M. Rhetenor*.

Female unknown.

* *Morpho Rhetenor*, var. *Cacica*, Staud., "Exotische Schmetterlinge," p. 206, pl. lxx. (1887).
VOL. I., JULY, 1890. K K

Hab. Rio Huayabamba (interior of North Peru), near its junction with the Huallaga (Garlepp).

In the Collections of Dr. Staudinger, and of Mr. Henley Grose Smith.

Dr. Staudinger considers this insect to be a variety of *Morpho Rhetenor*, Cram., to which his var. *Cacica* forms a transition. He adds, "*Morpho Helena* seems to be somewhat larger than *Rhetenor* and *Cacica*, as one ♂ expands 135 and another 144 millim.; while my largest males of *Rhetenor* and *Cacica* measure only 130-132 millim., and the smallest 115. The typical *Rhetenor* occurs in Guiana (Cayenne, Surinam, &c.), as well as at Iquitos in the Amazon District. The variety *Cacica*, which I have received only from Chanchamayo in the interior of S. Peru, occurs singly as an aberration at Iquitos. It remains to be seen whether the very remarkable var. *Helena* from N. Peru will afterwards be met with in other localities."



NYMPHALIDÆ.
MORPHINÆ.
MORPHOTENARIS. HYANTIS.



Horace Knight del. et lith.

West Newman imp.

1. MORPHOTENARIS NIVESCENS.
2. HYANTIS INFUMATA. 3. HYANTIS FULIGINOSA.

NYMPHALIDÆ.—MORPHINÆ.

MORPHOTENARIS.

MORPHOTENARIS NIVESCENS. ♀. FIG. 1.

Morphotenaris Nivescens, Rothschild, "Novitates Zoologica," Vol. III., p. 92 (1896).

Exp. $5\frac{1}{4}$ inches.

Female. UPPERSIDE. Both wings silvery-white, semi-hyaline. Anterior wings with the basal third of the costa broadly fuliginous-brown, and the veins narrowly brown. Posterior wings with the margins narrowly brown, and the ocelli on the underside indistinctly visible through the wings.

UNDERSIDE. Anterior wings as on the upperside. Posterior wings, with three ocelli, the uppermost, between the subcostal nervules towards the apex, the largest, the two other ocelli between the median nervules about half the size of the uppermost; all the ocelli have a white iris with a black pupil, surrounded by a very pale tawny zone, bounded outwardly by a narrow greyish-brown ring; there is a trace of a fourth ocellus above the discoidal nervule.

Hab. Eafa District, 5,000 feet, British New Guinea (Anthony, October, 1895).

In the Collection of the Hon. Walter Rothschild.

Mr. Rothschild remarks: "I think it is quite possible that when the fauna of the high mountains of New Guinea has become better known, we shall find connecting links between *M. Schönbergi*, Honr., and *M. Nivescens*, but at present I know of no such links, and I therefore am bound to treat *M. Nivescens* as a distinct species."

HYANTIS.

HYANTIS HODEVA, var. INFUMATA. ♂. FIG. 2.

Hyantis Hodera, var. *Infumata*, Staudinger, "Iris," Band VII., Heft 1., p. 108 (1894).

Exp. $3\frac{1}{4}$ inches.

Male. UPPERSIDE differs from the typical form in the more extended area of the fuliginous-brown colouring on both wings. On the anterior wings this colouring pervades nearly the whole of the cell, and the area below the cell and the lowest median nervule almost to the outer angle. The posterior wings are nearly altogether fuliginous-brown, the only paler space being the area round the extremity of the cell, the discoidal nervure and the upper parts of the median nervules being likewise paler.

On the UNDERSIDE, the lower as well as the upper part of the fulvous zone, which surrounds the ocellus on the anterior wings, comprises a white spot, and on the posterior wings the pale area is more extended, and approaches more nearly to the typical form.

Hab. Waigiou.

In the Collections of Dr. Staudinger and H. Grose-Smith.

HYANTIS HODEVA, var. FULIGINOSA. ♂. FIG. 3.

Exp. $3\frac{1}{4}$ inches.

Male. UPPERSIDE differs from the typical form, and also from the foregoing form, in the following respects: On the anterior wings the white area is restricted to the space between the lowest subcostal nervule and the uppermost median nervule, not extending to the outer angle; the subapical ocellus with the white spot above it is obsolete, but the ocellus on the underside can be seen faintly through the wings. On the posterior wings the white area is confined to the lower part of the cell and the space around it as far as the ocellus, being more restricted than in the typical form, and more extended and defined than in var. *Infumata*. The ocellus towards the anal angle is brighter

and larger than in var. *Infumata*, and, as compared with the typical form, is surrounded with a more sharply-defined outer dusky ring.

Hab. Kapaur, Dutch New Guinea (Doherty).

In the Collections of the Hon. Walter Rothschild and H. Grose-Smith.

Another form was received from Captains Cayley Webster and Cotton, from the Saddleberg, German New Guinea, which differs in several minor respects from *H. Hodeva* and the above described forms. On the upperside of the anterior wings the white area beyond and above the end of the cell extends nearly to the costal margin; the subapical ocellus is nearly obsolete, with a minute white spot in its middle, but without the white spot above it. On the underside this ocellus is smaller than in the other forms, the cell is entirely without any dusky or fuliginous shading, and the pale areas on both wings are purer and brighter white.



WILHELM HÄNDEL.

MORPHINÆ.

TENARIS I.



Königsberg.

Hannover.

1, 2 TENARIS BARBATA. 3, 4 TENARIS AFFINIS.
5, 6 TENARIS OCCULTA.

NYMPHALIDÆ.—MORPHINÆ.

TENARIS. I.

I.—TENARIS BARBATA. ♂. FIGS. 1, 2.

Tenaris Barbata, Kirby, "Annals and Magazine of Natural History," ser. 6, vol. 4, p. 161 (August 1889).

Exp. $3\frac{2}{5}$ inches.

Male. UPPERSIDE pure white. Anterior wings with the inner margin convex beyond the base, the costa and apex evenly edged with black above the subcostal nervure, invading the upper part of the cell, and extending below the apex as far as the first discocellular nervule. Posterior wings narrowly dusted with blackish at the tip as far as the second subcostal nervule, and again from the anal angle half-way along the inner margin, the upper ocellus showing indistinctly through, but the black, blue-dusted lower ocellus, with its white pupil well marked, though the outer rings are less distinct; below the base of the median nervure is a large brush of reddish-brown hair, and the hair between the median and first submedian nervures is yellow for a third of the length of the wing, and white beyond; the hair between the first and second submedian nervures, parallel to the dusky stripe on the inner margin, is also reddish-brown.

UNDERSIDE. Anterior wings as above. Posterior wings with the whole of the base from the costa to the inner margin yellow, slightly interrupted at the base of the cell; ocelli of moderate size, black, with inner crescents of blue dusting, and white pupils; the concentric rings are yellow and brown; the upper ocellus is so close to the tip of the wing that the costa cuts off half the upper edge of the outer brown ring; the lower ocellus is placed near but well within the hind margin.

Head, legs, pectus, and front of thorax above dark brown; thorax grey, with a dusky median stripe, including a short black one in front; head behind the antennæ, palpi, and abdomen yellow; palpi blackish on the sides above.

Hab. Rossel Island, Louisiade Archipelago (Basil Thomson).

In the Collection of the British Museum. "Possibly the male of *T. Jamesi*, Butler, described from a single female without further locality than New Guinea; but in this specimen the yellow is widely extended at the base of both pairs of wings above, and less so below; and the outer half of the inner margin of the anterior wings is blackish, instead of that of the posterior wings. It is much to be regretted that insects of the genus *Tenaris* are often received singly, for it is impossible without large series from the same locality to be certain whether the numerous closely-allied forms are really distinct or not, and we have therefore no alternative but to describe them provisionally as species." (Kirby, *loc. cit.*)

This species and the next were both captured on October 18, 1888, a single specimen of each.

II.—TENARIS AFFINIS. ♂. FIGS. 3, 4.

Tenaris Affinis, Kirby, "Annals and Magazine of Natural History," ser. 6, vol. 4, p. 162 (1889).

Male. UPPERSIDE very similar to *T. Barbata*, but the base of the anterior wings is slaty-grey, extending from the base nearly to the end of the cell, conterminous with the dark costa, and then crossing the median nervure, and covering the whole of the wing between its lowest branch and the submedian, and likewise the hinder angle, leaving only the inner margin white, beneath the submedian nervure, which runs white through the dusky portion of the wing to its extremity. Posterior wings with the costa and hind margin moderately broadly blackish to below the upper median nervure; the lower ocellus is larger than in *T. Barbata*.

UNDERSIDE with the yellow hair at the base of the posterior wings only visible between the median nervure and the inner margin; for the white base of the anterior wings and of the costa of the posterior wings (for the costal edging is narrower between the base and the ocellus) is black. The outer rings of the ocelli are wider and darker than in *T. Barbata*.

Hab. Rossel Island, Louisiade Archipelago (Basil Thomson).

In the Collection of the British Museum. Allied to *T. Barbata*, Kirby, *T. Onesimus*, Butler, and *T. Staudingeri*, Honrath.

III.—TENARIS OCCULTA. ♂. FIGS. 5, 6.

Tenaris Occulta, Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 3, p. 316 (1889).

Exp. ♂ $3\frac{1}{2}$, ♀ $2\frac{3}{8}$ inches.

“This species is near *T. Horsfieldii*, Swainson, but differs from it in the following respects :

“*Male*. UPPERSIDE. The anal third of the posterior wings is wholly pale brownish-white, instead of being margined with the same colour as the rest of the wings, the basal area being darker than in *T. Horsfieldii*.

“UNDERSIDE. The outer half of the posterior wings, in which the ocelli are situated, is pale brownish-white, except a space near the apex, which is irrorated with dusky-brown; the rest of the posterior wings is dark brown, the outer edge of which colour does not extend to the ocelli, but forms two distinct curves partially round them, leaving on the inner side of the upper ocellus a narrow, and of the lower ocellus a broader area of the same colour as the outer portion of the wings.

“*Female*. UPPERSIDE paler than in the male, and the lower ocellus of the posterior wings is entirely surrounded by the brownish-white colour of the anal area.

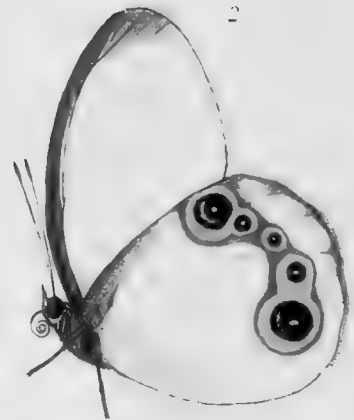
“UNDERSIDE. The outer two-thirds of the posterior wings is pale brownish-white, the basal third dusky-brown, which colour does not extend as far towards the ocelli as it extends in the male. The posterior wings are narrower than in the male.” H. G. S. (*loc. cit.*)

Hab. Kina Balu, North Borneo (Whitehead).

In the Collections of Messrs. John Whitehead and H. Grose Smith.



1871. THE BUTTERFLY
 M. R. PHINEAS
 PLATE I.



1871. THE BUTTERFLY

M. R. PHINEAS

1871. THE BUTTERFLY

4.5. " MICRUPS.

NYMPHALIDÆ.—MORPHINÆ.

TENARIS. II.

IV.—TENARIS ROTHSCILDI. ♂. FIGS. 1, 2. ♀. FIG. 3.

Tenaris Rothschildi, Henley Grose Smith, in "Novitates Zoologicæ," I., p. 359 (April 1894).

Exp. ♂ $3\frac{1}{8}$ inches; ♀ $3\frac{5}{8}$ inches.

"*Male*. UPPERSIDE. Both wings white, with the costa, apex, and inner margin of the anterior wings brownish-grey, the two latter rather broadly. Posterior wings with the outer margin narrowly, rather more broadly towards the apex, brownish-grey; between the two lowest median nervules is a black ocellus having a white pupil, partially surrounded with bluish-grey scales.

"UNDERSIDE. Anterior wings as above, except that the inner margin is not dusky. Posterior wings with the base and costal margin rather broadly, and outer margin towards the apex narrowly, brownish-grey. Across the disc is a curved row of five ocelli, each with a white pupil, and pale blue scales round, placed in pale fulvous zones, which are again surrounded by narrow fuscous rings; the fulvous zones surrounding the two upper and the two lower ocelli respectively being confluent; the fulvous zone round the middle ocellus is distinct; of the ocelli the uppermost and lowest are the largest and equal in size; the three others are much smaller and are connected by the fuscous rings.

"*Female*. UPPERSIDE. Anterior wings resemble the *male*, but the inner marginal dusky band is more dilated. The posterior wings are margined very broadly with fuliginous greyish-brown, in which is situate the black ocellus (with white pupil as in the *male*), with an indistinct pale greyish ring partly surrounding it.

"UNDERSIDE as above; but the ocelli on the posterior wings are larger, and the fuliginous greyish-brown area is irrorated with grey scales."

Hab. Humboldt Bay (Doherty).

"A fine pair of this remarkable insect is in the Collection of the Hon. Walter Rothschild. In the arrangement of the spots on the underside of the posterior wings, it resembles a variety of

T. Dimona, Hew., in which the middle ocelli are all developed and are surrounded by a common fulvous zone."

We lately received Band VII., Heft 1, of "The Iris," which now forms the Lepidopterous section of the "Deutsche Entomologische Zeitschrift," and we find that at pp. 109, 110, Dr. Staudinger, in criticizing Mr. Grose Smith's description of this species, quotes a part only of his final remarks upon it; by omitting the words "In the arrangement of the spots on the underside of the posterior wings," and quoting only the remainder of the sentence in which these words occur, Dr. Staudinger misrepresents the meaning of the whole paragraph, which obviously only draws attention to an analogous arrangement of the spots on those wings in a variety of *T. Dimona*, also captured by Mr. Doherty.

Upon this misrepresentation Dr. Staudinger bases his conclusion that *T. Rothschildi* is identical with the specimen noticed immediately afterwards as a variety of *T. Dimona*, and proceeds to make sarcastic remarks about legal subtleties and Mr. Grose Smith's logic, which are unwarranted and irrelevant.

If Dr. Staudinger had taken the trouble to carefully read the description of *T. Rothschildi* before he ventured upon his criticism, he would have seen that this species cannot be merely a "variety or aberration" of *T. Dimona*, that it must be an entirely distinct species, and that the only respect in which it approaches the variety of *T. Dimona* referred to is *the arrangement of the spots on the underside of the posterior wings*, words which Dr. Staudinger carelessly, but doubtless unintentionally, omits.

We shall be surprised to find that the three aberrations of *T. Dimona*, mentioned by Dr. Staudinger as being in his collection, and which he (erroneously as we believe) identifies with *T. Rothschildi*, turn out to be that species, and we anticipate that Dr. Staudinger will, if he finds he is in error, take an early opportunity of expressing his regret for the mistake into which he has fallen.

After reading the foregoing remarks, which throw some light upon the spirit which appears to pervade Dr. Staudinger's Paper in "Iris," our readers will be in a position to form their own opinion upon them, and to estimate the amount of reliance to be placed, generally, upon Dr. Staudinger's criticisms of Mr. Grose Smith's Paper in "Novitates Zoologicae."

V.—TENARIS MICROPS. ♂. Figs. 4, 5.

Tenaris Microps, Henley Grose Smith, in "Novitates Zoologicae," I., p. 359 (April 1894).

Exp. $3\frac{3}{8}$ inches.

"*Male*. UPPERSIDE. Both wings fuliginous grey. Anterior wings with the outer part of the cell and the disc from the upper median nervule to the inner margin sordid white, the veins over the pale space grey. Posterior wings with the basal third greyish white shading outwardly into the fuliginous grey of the outer area.

"UNDERSIDE. Anterior wings as above, but the pale space extends upwards nearly to the costa. Posterior wings with the cell, except at the base, and the

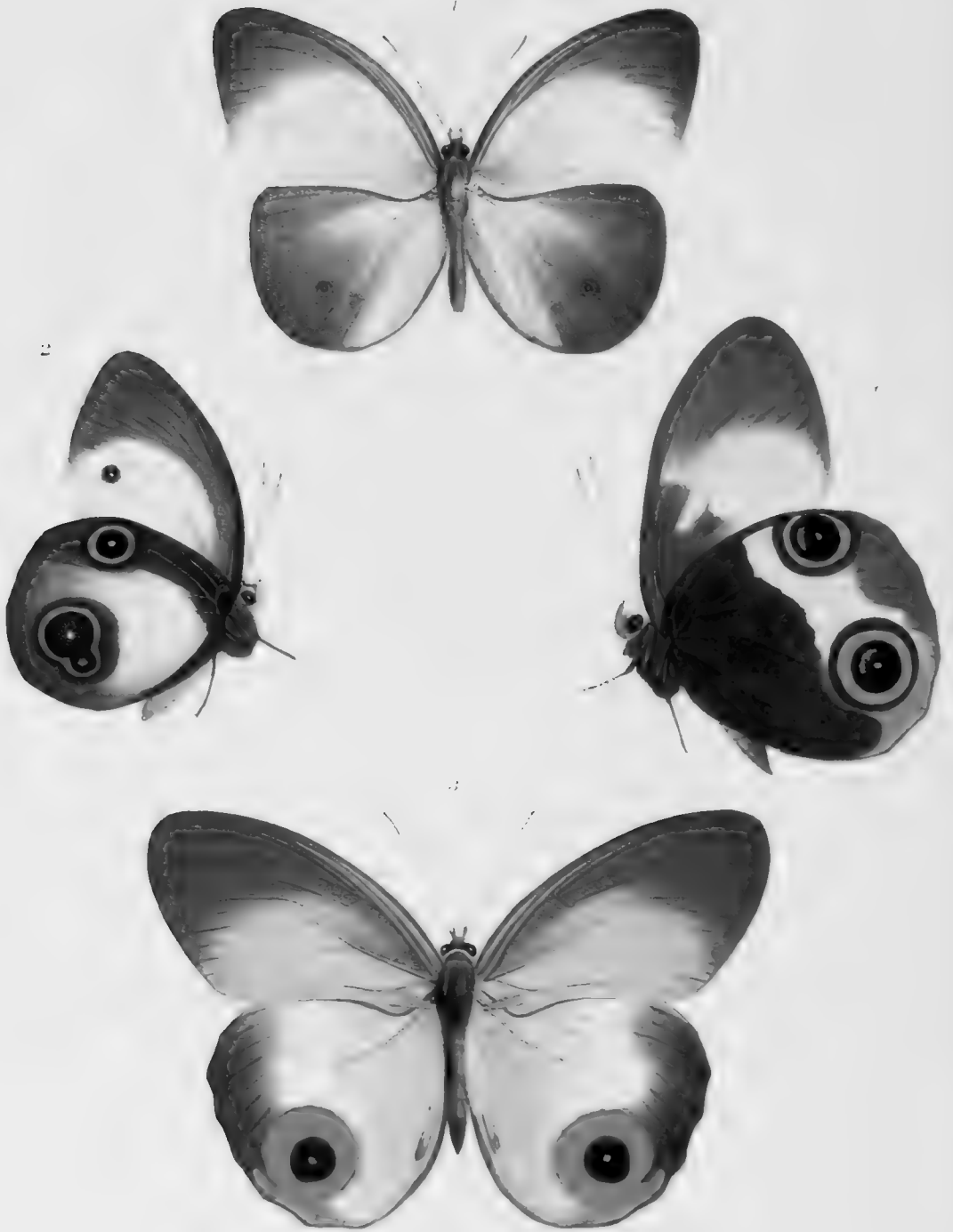
space above it nearly to the costal margin, and the disc greyish-white shading into the fuliginous grey of the abdominal and outer area, which is more or less irrorated with grey scales; towards the apex, between the subcostal nervules and extending above and below them, is an ocellus, considerably smaller than in other species of the group, having a white pupil and narrow blue ring, and surrounded by a rather narrow pale fulvous ring bordered outwardly with a dark fuliginous ring; between the median nervules across the disc are two smaller ocelli, blue with white pupils, and surrounded with a narrow black ring, outside which is a dusky fulvous ring, both the discal ocelli being surrounded by a rather broad dark fuliginous zone."

Hab. Humboldt Bay (Doherty).

One specimen only is in the Collection of the Hon. Walter Rothschild. "In the size and coloration of the ocelli on the underside of the posterior wings this differs from any other described species; on the upper side it somewhat resembles *T. gorgo*, but the anterior wings are longer, and the posterior wings are less irrorated with grey scales at the anal angle."



NYMPHALIDÆ.
MORPHINÆ.
TENAPIA III.



NYMPHALIDÆ.—MORPHINÆ.

IV.—TENARIS ROTHSCILDI. Additional Note. (*Antea*, p. 5. Plate, Tenaris II.)

Our figures 1 and 3 of this species convey a somewhat inaccurate representation of the uppersides of the posterior wings, as the ocelli on the underside of those wings are much too distinctly indicated on the upperside.

On the upperside only the ocellus nearest the anal angle is represented, the other ocelli on the underside with their encircling rings being only indistinctly visible through the wings.

TENARIS. III.

VI.—TENARIS GORGO. ♂. FIGS. 1, 2.

Tenaris Gorgo, Kirsch, "Mittheilungen aus dem k. Zoologischen Museum zu Dresden," II., p. 121 (1877); Staudinger, "Exotische Schmetterlinge," I., p. 197 (1887); H. Grose Smith, "Novitates Zoologicæ," I., p. 359 (April, 1894).

Exp. $2\frac{3}{4}$ inches.

Male. UPPERSIDE. Anterior wings white, ashy-grey along the costa and apex to below the middle of the hind margin; fringes black; posterior wings with the inner two-fifths white, the outer portion ashy-grey; marked on one side with a small black ocellus with a bluish pupil and a slight yellow outer ring; fringes black; a small tuft of yellowish hairs near the base of the wings.

UNDERSIDE. Anterior wings as above, but with the borders darker; there is a small round black spot between the two lowest median nervules. Posterior wings broadly blackish on the borders, the centre white, as far as the submedian nervure; two black ocelli of moderate size, dusted with blue, and with bluish-white pupils; enclosed in fulvous rings; the outer blackish rings moderately

broad, but not sharply defined; the lower ocellus is imperfectly double in the specimen figured.

Hab. Humboldt Bay, New Guinea (Doherty, and Captains Cayley Webster, and Cotton).

In the Collections of the Hon. W. Rothschild and Mr. Grose Smith.

This rare species is allied to *T. Myops* Feld. A closely allied species inhabits Aru, in which there is a blue ring in the lower ocellus of the hind wings beneath, in the place of scattered blue dusting.

Kirsch's description is short, and not very satisfactory.

It is proposed to figure and describe the female at an early date.

VII.—TENARIS DOHERTYI. ♂. Figs. 3, 4.

Tenaris Dohertyi, H. Grose Smith, "Novitates Zoologicæ," I, p. 358 (April, 1894).

Exp. 4 inches.

Male. UPPERSIDE. Anterior wings fuscous, paler in the middle, and below the cell to the inner margin. Posterior wings white, broadly bordered with fuscous, which extends from the apex to nearly half way below the large ocellus, which is situated on the disc between the two lowest median nervules, and extends beyond them on each side. The ocellus is broadly black, with a white pupil, and is surrounded with a broad bright fulvous zone, which extends below the ocellus to the outer margin, thence narrowing to the anal angle, the outer margin beyond the zone being narrowly brown; the dark band and apical ocellus on the underside show indistinctly through the wings.

UNDERSIDE. Anterior wings, basal and apical third darker fuscous than on the upperside, the middle third sordid white, which commences near the costal margin, a little before its middle, and extends over the outer third of the cell and the centre part of the wings to the anal angle and the inner margin, being deeply indented where it crosses the cell. Posterior wings with the inner half from the middle of the costa to a little above the anal angle dark ferruginous, the outer margin of the dark area, which extends vertically across the wings, being irregularly indented, but well defined; the outer third, in which is situated a large subapical ocellus, narrows gradually down the wings, and ceases on the margin just before the middle median nervule. The intervening space is brownish white, and extends round a large discal ocellus to the outer margin

below it, where it extends inwardly to the anal angle; the space below the ocellus to the angle is brightly ochraceous. Both ocelli have narrow lunulate clusters of blue scales situated in the black portions, which have white pupils, and are surrounded by fulvous and then by dark ferruginous rings.

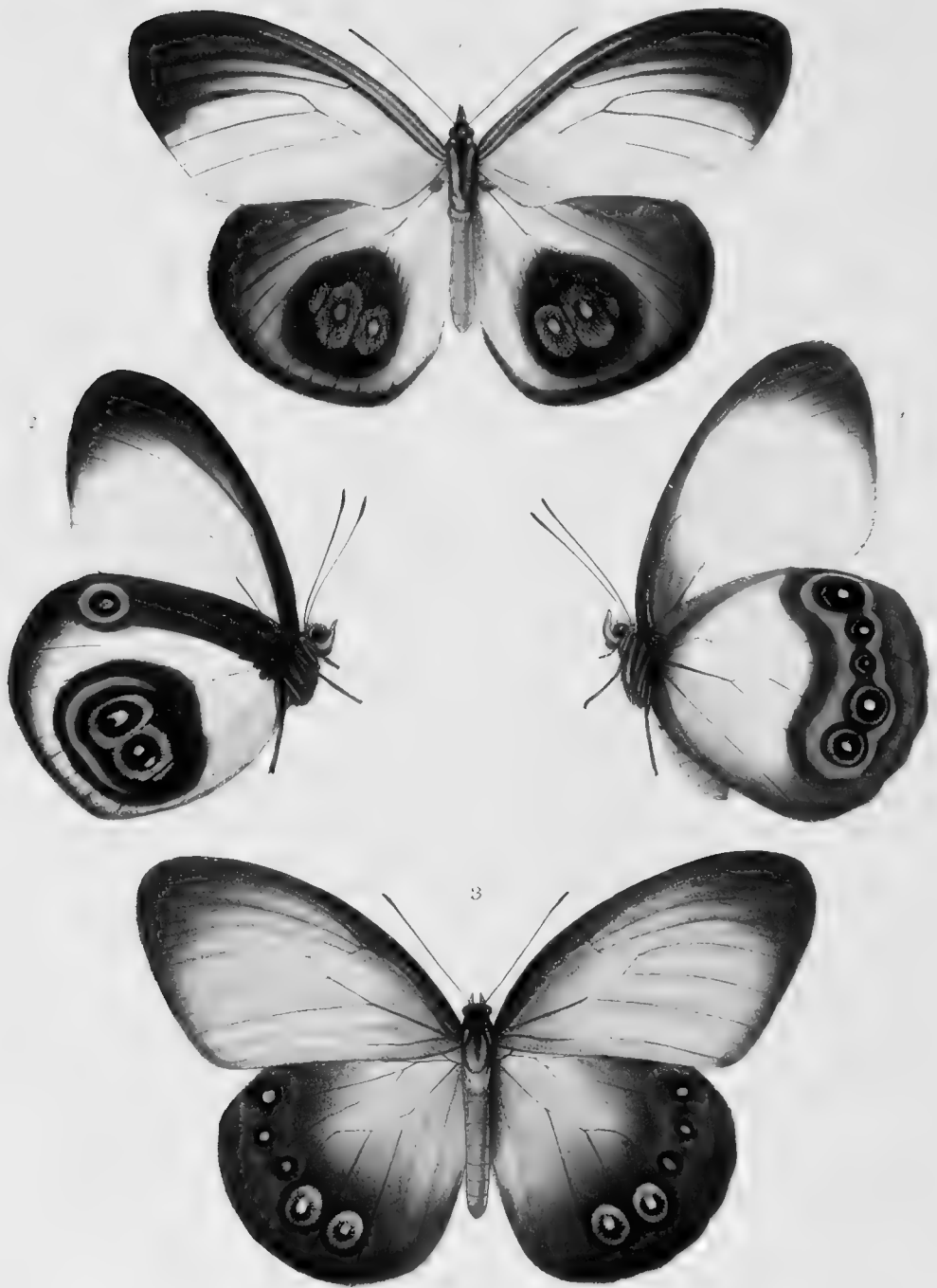
Head and thorax fuscous above, lighter below, abdomen yellowish, with a brown shade above; there is a narrow yellow collar, and the palpi are bright yellow below.

Below the base of the median nervure of the posterior wings is a long tuft ochreous-brown hairs.

Hab. Korrido, New Guinea (Doherty).

In the Collection of the Hon. W. Rothschild,
Described from three male specimens.

NYMPHALITÆ,
MORPHINÆ,
TENDRIS.



— *How is the weather?*

$$E_{\text{total}} = \sum_{i=1}^n \left(\frac{1}{2} m_i v_i^2 + \frac{1}{2} I_i \omega_i^2 \right) + \sum_{i=1}^n \left(\frac{1}{2} m_i v_{\text{cm},i}^2 + \frac{1}{2} I_{\text{cm},i} \omega_i^2 \right)$$

$\Gamma = \Gamma_1 \cup \Gamma_2 \cup \Gamma_3 \cup \Gamma_4 \cup \Gamma_5 \cup \Gamma_6 \cup \Gamma_7 \cup \Gamma_8 \cup \Gamma_9 \cup \Gamma_{10} \cup \Gamma_{11} \cup \Gamma_{12} \cup \Gamma_{13} \cup \Gamma_{14} \cup \Gamma_{15} \cup \Gamma_{16} \cup \Gamma_{17} \cup \Gamma_{18} \cup \Gamma_{19} \cup \Gamma_{20} \cup \Gamma_{21} \cup \Gamma_{22} \cup \Gamma_{23} \cup \Gamma_{24} \cup \Gamma_{25} \cup \Gamma_{26} \cup \Gamma_{27} \cup \Gamma_{28} \cup \Gamma_{29} \cup \Gamma_{30} \cup \Gamma_{31} \cup \Gamma_{32} \cup \Gamma_{33} \cup \Gamma_{34} \cup \Gamma_{35} \cup \Gamma_{36} \cup \Gamma_{37} \cup \Gamma_{38} \cup \Gamma_{39} \cup \Gamma_{40} \cup \Gamma_{41} \cup \Gamma_{42} \cup \Gamma_{43} \cup \Gamma_{44} \cup \Gamma_{45} \cup \Gamma_{46} \cup \Gamma_{47} \cup \Gamma_{48} \cup \Gamma_{49} \cup \Gamma_{50} \cup \Gamma_{51} \cup \Gamma_{52} \cup \Gamma_{53} \cup \Gamma_{54} \cup \Gamma_{55} \cup \Gamma_{56} \cup \Gamma_{57} \cup \Gamma_{58} \cup \Gamma_{59} \cup \Gamma_{60} \cup \Gamma_{61} \cup \Gamma_{62} \cup \Gamma_{63} \cup \Gamma_{64} \cup \Gamma_{65} \cup \Gamma_{66} \cup \Gamma_{67} \cup \Gamma_{68} \cup \Gamma_{69} \cup \Gamma_{70} \cup \Gamma_{71} \cup \Gamma_{72} \cup \Gamma_{73} \cup \Gamma_{74} \cup \Gamma_{75} \cup \Gamma_{76} \cup \Gamma_{77} \cup \Gamma_{78} \cup \Gamma_{79} \cup \Gamma_{80} \cup \Gamma_{81} \cup \Gamma_{82} \cup \Gamma_{83} \cup \Gamma_{84} \cup \Gamma_{85} \cup \Gamma_{86} \cup \Gamma_{87} \cup \Gamma_{88} \cup \Gamma_{89} \cup \Gamma_{90} \cup \Gamma_{91} \cup \Gamma_{92} \cup \Gamma_{93} \cup \Gamma_{94} \cup \Gamma_{95} \cup \Gamma_{96} \cup \Gamma_{97} \cup \Gamma_{98} \cup \Gamma_{99} \cup \Gamma_{100}$

NYMPHALIDÆ.—MORPHINÆ.

TENARIS. IV.

VIII.—TENARIS DINA. ♂. FIGS. 1, 2.

Tenaris Dina, Staudinger, "Deutsche Entomologische Zeitschrift: 'Iris' (Dresden)," VII., p. 112 (1894).

Exp. 3-3½ inches.

Male. Anterior wings white, the costal area is dusky brown from the base as far as the upper part of the cell, thence the dark colouring expands over the apical area, to below the upper median nervule, which, as well as the lowest radial nervule, is thickened with blackish scales almost to its origin. Posterior wings white at the base and along the inner margin, beyond which are two large blue spots, with indistinct black rings near their centres, and an indication of a third blue spot, all surrounded by a circular dusky brown space, showing slight purple reflections along the folds, and separated by a greyish-white space from the dusky brown border. At the base of the posterior wings is a brush of reddish-brown hairs, the inner marginal fold is filled with brownish-white hair, and the spaces between the submedian, the median, and the two lowest median nervules and the centre of the discoidal cell are covered with white hair as far as the blue spots. There is also a patch of white hair on the anterior wings, extending over both sides of the submedian nervule near the base.

UNDERSIDE. Anterior wings as above, the nervures bounding the cell being hardly thickened with black scales towards their origin. Posterior wings white, yellowish along the inner margin, with a dark brown border, extending from the base of the costa round to the anal angle; broad along the costal area, and gradually narrowing along the outer margin; near the apex is a moderate-sized black eye, with a white pupil surrounded with blue scales in a tawny ring surrounded by a narrow black ring, the latter being obliterated above by the dark costal area. Towards the anal angle is a very large circular blackish

space, enclosing two large black eyes, in blue rings, separated by the lowest median nervule; the lower eye has two large blue pupils, and the upper has one pupil, besides some scattered blue flecks. Between these and the outer edge of the black area is a tawny band, running from the lowest median nervule above the outer eye, and extending round it and below both eyes, almost as far as the submedian nervure.

Head and body blackish, with dark grey markings above; palpi beneath, and abdomen, yellow.

Hab. Constantine Harbour, New Guinea (Kubary).

In the Collections of Dr. Staudinger, the Hon. W. Rothschild and Mr. H. Grose Smith.

Differs from all other forms allied to *T. bioculatus*, Guérin, by the incomplete outer yellow ring in the large dark area on the underside of the posterior wings.

IX.—TENARIS DINORA. ♀. FIGS. 3, 4.

Tenaris Dimona, var., H. Grose Smith, "Novitates Zoologicæ," I., p. 360, n. 141 (April, 1894).

Exp. ♂ $3\frac{3}{8}$ inches. ♀ $3\frac{7}{8}$ inches.

UPPERSIDE. Anterior wings sordid-white, shading into smoky-brown on the costa, most broadly in the ♂ at the apex, and in the ♀ on the outer margin; nervures brown; inner margin with long white fringes. Posterior wings sordid-white on the basal half, with a yellowish-brown tuft at the base in the ♂; marginal half of the wings smoky-brown, with a curved row of five black spots broadly centred with blue, the two towards the anal angle the largest, and composed of an outer blue ring, and an inner blue centre, connected above with the ring; the apical and the third spots are smaller, and the second is the smallest, and in the ♂ is obsolete; a faint trace of the outer loop shows through from the underside.

UNDERSIDE. Anterior wings whiter than above; basal half of the cell, and the costal and apical areas smoky-brown. Posterior wings narrowly smoky-brown at the base, along most of the costa, and along the inner margin, the rest of the wing sordid-white to beyond the middle (yellowish towards the inner margin), and with the marginal area very broadly smoky-brown. In this brown border stand five black eyes, with large bluish-white pupils, detached from which is a blue ring, incomplete, except in the case of the two large eyes near the anal angle, which are contiguous. Round and between the eyes (except between

the two large anal eyes) runs a continuous tawny band, paler in the ♂, in which the spots are smaller.

Head and thorax black, upperside of thorax shading into dark grey behind, which colour extends to the base of the abdomen; undersurface and legs black; palpi beneath, and abdomen, yellow.

Hab. New Guinea (Kubary and Doherty).

In the Collections of Dr. Staudinger and the Hon. W. Rothschild.

This insect is the same as the variety of *T. Dimona* mentioned by Mr. Grose Smith, in "Novitates Zoologicæ," Vol. I., page 360, to which Dr. Staudinger's remarks in "Iris" (Band VII., Heft I., pp. 109, 110) were directed, and which that gentleman confounded with *T. Rothschildi*. On a comparison of the plate on which *T. Rothschildi* is figured (Rhop. Exot., Vol. II., *Tenaris* II., figs. 1-3) with the figure of *T. Dinora* here given, it will be seen how uncalled-for were Dr. Staudinger's remarks.



NYMPHALIDAE.

MORPHINAE.

TENARIS V.



Harvey Knight del et lith

West, Newman in.

12 TENARIS MAILLARDI
MELAN. 1894

NYMPHALIDÆ.—MORPHINÆ.

TENARIS. V.

X.—TENARIS MAILUA. ♂. FIGS. 1, 2.

Tenaris Mailua, H. Grose-Smith, "Novitates Zoologicae," Vol. IV., p. 313 (August, 1897).

Exp. 3 inches.

Male. UPPERSIDE. Both wings dark fuliginous-grey. Anterior wings crossed obliquely beyond the cell by a large subapical diffused white patch, the white area not extending over the subcostal nervules anteriorly, or quite reaching the outer margin posteriorly. Posterior wings with a large diffused yellowish-white patch from near the base, extending over the cell and the lower part of the disc, but not quite reaching the outer and abdominal margins, which are dark fuliginous-grey; between the two lowest submedian nervules is a small ocellus with a pale violet pupil and a bright fulvous outer ring.

UNDERSIDE. Darker and brighter than on the upperside. On the posterior wings are two very bright ocelli with broad fulvous outer rings; the lower ocellus is larger than on the upperside, and the pupil, which is white, is surrounded by a ring of violet scales.

Antennæ black; palpi and abdomen fulvous.

Female resembles the male, but on the upperside the white areas on both wings are rather more extended, and the ocellus on the posterior wings of the male is absent.

Hab. Mailu, British New Guinea (Anthony, July 1895).

Nearest to *T. Anableps*, Voll., and *T. Uranus*, Stgr., but the position and extent (on the posterior wings) of the white patches readily separate it from these species.

Described from two ♂ and two ♀ specimens.

In the Collection of the Hon. Walter Rothschild.

XI.—TENARIS MELANOPS. ♀. FIGS. 3, 4.

Tenaris Melanops, H. Grose-Smith, "Annals and Magazine of Natural History," Series 6, Vol. XIX., p. 177 (February, 1897).

Exp. 4 inches.

Female. UPPERSIDE white; anterior wings with the basal two-thirds of the cell and the area below the median nervure and the lowest submedian nervule to the inner margin, also the costal margin broadly to the apex, fuliginous-grey; the veins, except where crossed by the grey colour, are white. Posterior wings with the costal margin to the apex broadly grey, thence along the outer margin more narrowly grey, until that colour merges in the white lower part of the wings; on the disc, between the median nervules and a little on either side, is a very large diffused fuliginous greyish-black spot, in which, a little above its centre, is situate a large cluster of lavender-coloured scales; at the lower end of this cluster is a pure white spot, and near the outer edge of the black spot is another small lavender spot; near the apex is another small lavender spot surrounded by black. Towards the base the wings are clothed with long yellowish-brown hairs.

UNDERSIDE. Anterior wings as on the upperside; posterior wings with two large fuliginous-brown ocelli, one of which is situate on the margin near the apex, and the other on the disc extending over the submedian nervules; both ocelli are centred by a white spot partially surrounded by a cluster of lavender-coloured scales, situate in a circular black zone; outside the zone is an indistinct fuscous ring, outside which, still in the fuliginous-brown area, is a minute white spot on each ocellus.

Hab. Sud-Est, New Guinea (Woodford).

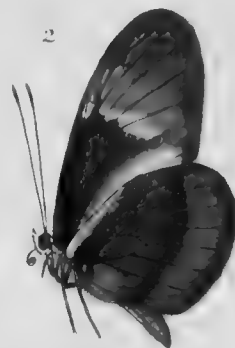
Nearest to *T. Affinis*, Kirby.

In the Collection of Mr. H. Grose-Smith.



NEW MEXICAN BUTTERFLIES.

HELICONINÆ
HELICONIUS .I.



M. Horman Fisher del et lith.

M. V. Horman 1869

1 2 HELICONIUS RUBELINUS
3 AMANDUS.

4 HELICONIUS PHYLLAS
5 ANACREON.

NYMPHALIDÆ.—HELICONINÆ.

HELICONIUS. I.

I.—HELICONIUS RUBELLIUS. FIGS. 1, 2.

Exp. $2\frac{3}{4}$ inches.

UPPERSIDE bluish-black. Anterior wings with a curved orange-red band, occupying about the third quarter of the costa, and curving towards the hinder angle; it is divided into eight spots by the nervures, most of which, except those nearest the hinder angle, are long. The fifth, sixth, and seventh spots are marked with yellow on the basal side, and the first is marked with a double yellow spot. Posterior wings with the costa broadly brownish-grey, and a sub-marginal row of five spots formed of yellowish-grey dusting.

UNDERSIDE reddish-brown, darker towards the base, especially on the anterior wings. The costa is very slightly marked with red at the base, and the transverse red band is narrower and duller than on the upper side, but it is bordered on the basal side by a narrow yellow band, divided into spots by the nervures, but otherwise only interrupted below the second spot; it extends as far as the lowest median nervule, below which the wing is at first dark grey, and then light grey, as far as the inner margin. Posterior wings with a yellow streak on the basal half of the costa, a red spot at the base, between the origin of the median and submedian nervures, and a reddish-brown blotch about the middle of the inner margin.

Head and body spotted, and legs streaked with yellow.

Hab. Colombia.

In the Collection of H. Grose Smith.

Allied to *H. Heurippa* and *Unimaculata*, Hewitson, and *H. Amor*, Staudinger.

II.—HELICONIUS AMANDUS. FIG. 3

Exp. 3 inches.

UPPERSIDE. Both wings brownish-black. Anterior wings with a broad crimson transverse band extending almost equally within and without the cell, to halfway between the lowest median nervule and the submedian nervure; median nervure slightly bordered with a greenish-yellow line above, and still

more slightly below; a yellow spot above the base of the submedian nervure. Posterior wings with the costal region brownish-grey, and a broad continuous greenish-yellow stripe extending below it rather more than half the length of the wing, with its outer edge sinuate.

UNDERSIDE chocolate-brown. Anterior wings with a red dash at the base of the costa, the transverse band pale pink, and containing a black crescent on the upper part of the discocellular nervules, median nervure edged above only with an indistinct greenish-yellow stripe; inner margin brownish-grey. Posterior wings with a narrow yellow stripe at the base of the costa, the yellow band paler than above, and a row of three red spots above it, between the forks of the nervures.

Head, body, and legs extensively spotted and streaked with yellow.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose Smith.

This and the following species are allied to *H. Amaryllis*, Feld.

III.—HELICONIUS PHYLLIDIS. FIG. 4.

Exp. nearly 3 inches.

UPPERSIDE brownish-black. Anterior wings with a broad crimson band curving beyond the cell (the upper angle of which it just invades) from below the costa to the lowest median nervule. A slender greenish-yellow line runs nearly from the base above the median nervure to the base of the lowest median nervule, above which it is nearly connected with the red band by a yellow spot and a small red dash. Posterior wings brownish-grey along the costa, and with a rather narrow greenish-yellow stripe below the grey band, broken widely into spots. Near the middle of the inner margin is a short red line.

UNDERSIDE chocolate-brown. Anterior wings with the base of the costa red, and the red band much narrower and paler, almost whitish, except at the edges, and widely separated from the yellow line and spot; inner margin brownish-grey. Posterior wings with the base of the costa yellow, and the yellow stripe composed of more numerous and continuous spots than above. Above the stripe are five red spots (the two lowest contiguous) between the forks of the nervures, and below it is a row of five small red linear spots, the second of which is the largest, and corresponds to the short red stripe above.

Head and body spotted, and legs streaked with yellow.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose Smith.

IV.—HELICONIUS ANACREON. FIG. 5.

Exp. $2\frac{3}{4}$ inches.

UPPERSIDE. Anterior wings dark brown, with a rather broad transverse brick-red band extending beyond the cell, the upper angle of which it just invades, nearly as far as the lowest median nervule. Base with four red stripes, the first narrow, subcostal, the others broader, one in the cell, and the two others below; median nervure edged with yellow above (and slightly below), followed by a yellow spot in the fork of the lowest submedian nervule. Posterior wings dark brown, costa brownish-grey, below which is a broad yellow band, extending nearly to the apex; there are also six radiating stripes between the nervures, of which only three extend above the yellow stripe.

UNDERSIDE chocolate-brown. Anterior wings with the transverse band narrower, pale pink, edged below with orange-red, inner margin pinkish-grey; of the basal stripes only the upper yellow stripe and spot and a short red stripe at the base of the costa are distinctly visible, but there is a slight reddish shade in the cell. Posterior wings with a short yellow stripe at the base of the costa; fringes at the apex and a little below whitish; the long yellow stripe as above, but paler; a long red subparallel stripe above it, and three red stripes marked with black nearer the base; and seven red stripes radiating below the yellow band.

Head, legs, and undersurface of abdomen slightly marked with yellow.

Hab. Bolivia.

In the Collections of Dr. Staudinger and H. Grose Smith.

Allied to *H. Thelziope*, Hübn.





NYMPHALIDÆ.—ACRÆINÆ.

ACRÆA I.

I.—ACRÆA POLLONIA. ♂. Figs. 1, 2.

Acræa Pollonia, Godman and Salvin, "Annals and Magazine of Natural History," ser. 6, vol. 1, p. 120 (March, 1889).

Exp. $2\frac{3}{4}$ inches.

Male. UPPERSIDE. Both wings cinereous-brown. Anterior wings semi-transparent, more opaque towards the apex and along the outer margin. Posterior wings cinereous-brown, darker towards the outer margin, in the area between the two upper median nervules, and in a triangular space towards the base, beneath the median nervure, a sulphureous-white band crosses the middle, divided by the dark nervures, commencing beneath the first subcostal nervule, and crossing the outer third of the cell, interrupted by the dark space between the two upper median nervules, and continued between the middle and third median nervules and thence to near the inner margin.

UNDERSIDE. Anterior wings almost devoid of scales, and faintly iridescent green, with five rather small indistinct sulphureous-white submarginal spots between the veins, commencing near the apex. Posterior wings pervaded in certain lights with faint iridescent green, with a broad cinereous-brown marginal band centred with a row of sulphureous-white conical spots between the veins, gradually diminishing in size towards the anal angle; the costal and inner margin, base, and an irregular triangular patch below the median nervure, extending at its upper end into the cell, dark cinereous-brown, the rest of the wings and a spot towards the upper end of the triangular patch irrorated with sulphureous-white, more densely so towards the base and the inner margin.

Hab. Guadalecanar (C. M. Woodford).

In the Collections of Messrs. Godman and Salvin and H. Grose Smith.

The specimen described by Messrs. Godman and Salvin is a female—it closely resembles the male in every respect except in the expansion of the wings, which is one-fourth greater.

II.—ACRÆA MACHEQUENA. ♂. FIG. 3. ♀. FIG. 4.

Acræa Machequena, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 5, vol. 19, p. 62 (January, 1887).

Exp. 2 inches.

"*Male*. UPPERSIDE. Anterior wings transparent, clouded with brown from the base to the end of the cell, and below it to the inner angle.

"Posterior wings brown, a row of seven lunular black spots on the margin; beneath each lunule is a small brown spot on the margin; from the centre of the costal margin to the centre of the hind margin is an irregular row of eight distinct small black spots, within which is a cluster of six spots near the base, also distinct.

"UNDERSIDE as above, but paler.

"The *female* closely resembles *A. Manandaza* of Ward, while the male is very close to *A. Ranavalona* of Boisduval. The male and female having been taken *in copulâ*, it would appear clear that *A. Manandaza* and *A. Ranavalona* are also sexes of the same species. *A. Machequena* differs from them in the colour of the male, and in the size of the spots on the posterior wings, which are smaller and distinct, not confluent as in *A. Ranavalona*, and the marginal row of spots is nearer to the margin. I am not aware that *A. Ranavalona* or *A. Manandaza* [which are common in Madagascar] have been taken on the main land." (H. G. S., *loc. cit.*)

Hab. Delagoa Bay (Mrs. Monteiro).

In the Collection of Henley Grose Smith.

III.—ACRÆA CUVA. ♀. FIG. 5.

Acræa Cuvæ, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 3, p. 126 (February, 1889).

Exp. 2 inches.

"*Female*. UPPERSIDE. Both wings semitransparent, bright rosy-brown to the extent of two-thirds of the anterior and four-fifths of the posterior wings, round the outer margin of which latter is a clear, rather broad, transparent marginal space.

"Posterior wings with an irregular row of eight black spots beyond the

middle, the fourth the outermost; the fourth, seventh, and eighth towards the anal angle the smallest.

“UNDERSIDE. Posterior wings with spots as above, but rather larger, and a cluster near the base, which are indistinctly seen on the upperside.” (H. G. S., *loc. cit.*)

Hab. Mombasa, E. Africa (Last); Zanzibar.

In the Collections of the British Museum and of Henley Grose Smith.

Nearest allied to *A. Dammi*, Voll.

IV.—ACRÆA MAKUPA. ♂. FIG. 6.

Acræa Makupa, Henley Grose Smith, “Annals and Magazine of Natural History,” ser. 6, vol. 3, p. 126 (February, 1889).

Exp. $2\frac{1}{4}$ inches.

Male. “UPPERSIDE. Both wings semitransparent brown. Anterior wings with base, costal margin, a large spot across the middle of the cell, a transverse band of confluent spots at the end of the cell from the middle of the costa to the inner angle, a curved band of similar spots beyond, broadest on the costa, narrowest near the inner angle, where it joins the preceding band, the outer margin and the veins, dark brown.

“Posterior wings crossed beyond the middle by an irregular curved band, which, with the veins and margins, are dark brown.

“UNDERSIDE as above, but on the posterior wings the space between the base and the curved band is irrorated with whitish-brown.

“I am not aware of any African *Acræa* which resembles this species, but it has a general resemblance to *A. Alalia*, Feld., from South America.” (H. G. S., *loc. cit.*)

Hab. Mombasa, E. Africa (Last).

In the Collection of Henley Grose Smith.

V.—ACRÆA BRÆSIA. ♂. FIG. 7.

Acræa Bræsia, Godman, “Proceedings of the Zoological Society of London,” 1885, p. 538; Butler, *op. cit.*, p. 760 (1886).

Exp. 2 to $2\frac{1}{2}$ inches.

Male. UPPERSIDE. Anterior wings extremely long, narrow, and pointed; vitreous, narrowly edged with black, and washed with pink at the base, more or less along the costa and the principal veins, but most along the inner margin; a series of suffused orange-rufous spots between the nervures before the black edging of the hind margin; there is a black transverse spot in the cell, another at the end, and a row of four or five beyond, running from the costa; there are two more nearer the base above the submedian nervure, and often another in the first fork of the median.

Posterior wings pink, sometimes a little paler in the middle, and with several black spots, and those on the underside showing through; base blackish, hind margin with a moderately broad black border.

UNDERSIDE similar, but anterior wings with the submarginal spots between the nervures larger, better defined, and more orange-coloured; posterior wings buff, faintly mottled with pink towards the base and along the inner margin, with about nineteen black spots. Hind margin with a festooned black line, enclosing seven buff crescent-shaped or slightly sagittate spots.

Body black above, head and thorax with pinky-white spots; abdomen with two rows of large white ones; legs, palpi, and undersurface of abdomen (the last spotted with black) rusty-yellow; a pink spot on each side under the wings. Club of the antennæ very large and round.

Female. Anterior wings vitreous, edged with black, slightly stained with dull pink along the costa and inner margin; the submarginal spots tawny-yellow; the black spots as in the male.

Posterior wings white, with a black border, and shading into dark greyish-brown at the base; the inner margin slightly stained with pink; the spots as in the male.

UNDERSIDE similar to the upper; but on the posterior wings the black spots at the base are fused into a single band, bordered outside with pink, which colour likewise extends along the inner margin. The ground-colour does not darken at the base, and there is a row of white oblong spots in the black hind-marginal border.

Body as in the male, but less yellow beneath.

Hab. Somali Land, Kilima-njaro (5,000 feet, August), Lamu, and Mombasa (Last), East Africa.

In the Collections of the British Museum and of Henley Grose Smith.

Allied to *A. Oncxa*, Hopff.



NYMPHALIDÆ.—ACRÆINÆ.

ACRÆA. II.

VI.—ACRÆA KHARA. ♂. FIGS. 1, 2.

Acræa Khara, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 3, p. 128 (February, 1889).

Exp. 3 inches.

"*Male*. UPPERSIDE. Both wings bright reddish-brown, shaded towards the base with black; a black band on the outer margin of both wings, broadest at the apex of anterior wings. Anterior wings: costa broadly black, shaded with black towards the apex; a spot across the cell, another at the end, beyond which is a cluster of three spots, confluent, beyond this a pale pinkish space, semitransparent; below the cell are two spots close to the nervures, one near the base, the other halfway between and below the two cellular spots; below the last-named is another spot; the spots, and nervures especially towards the apex, broadly black.

"Posterior wings with a cluster of spots from the centre to the base.

"UNDERSIDE. Anterior wings reddish-brown, dusky towards the apex; costa and outer margin narrowly black: nervures from the middle of the wings black.

"Posterior wings brown, shaded towards the middle with pale, and at the base with darker, pink; spots and marginal band as above, the latter with a row of pale, narrow, oblong spots between the nervures." (H. G. S., *loc. cit.*)

Hab. Mombasa, E. Africa (Last).

In the Collection of Henley Grose Smith.

Allied to *A. Egina*, Cram., but brighter, less transparent, and with a very distinct black band on the outer margin of anterior wings.

VII.—ACRÆA SALAMBO. ♂. FIGS. 3, 4.

Acræa Salambo, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 1, p. 62 (January, 1887).

Exp. $3\frac{1}{2}$ inches.

Male. "UPPERSIDE. Semitransparent, greyish-brown, the inner portion on which the spots are placed much lighter, and tinged with pink.

"Anterior wings with a large black spot in the middle of the cell, and

another at the end of the cell, beyond which, near it, is a third spot, trifold; beneath these are six spots, the three outermost in a curved band between the median nervures, the lowest being bifid.

“Posterior wings with the outer margins broadly dark brown, inside which is a curved band of eight black spots, and irregularly clustered towards the base is a group of twelve black spots.

“UNDERSIDE as above, but lighter; the posterior wings darker towards the margins, but without the broad dark brown margin, tinged with pink towards the base.

“Abdomen black, the terminal segments yellowish-brown. Antennæ black.” (H. G. S., *loc. cit.*)

Hab. Congo.

In the Collection of Henley Grose Smith.

VIII.—ACRÆA MATUAPA. ♂. FIG. 5. ♀. FIG. 6.

Acræa Matuapa, Henley Grose Smith, “Annals and Magazine of Natural History,” ser. 6, vol. 3, p. 127 (February, 1889).

Exp. ♂ $2\frac{1}{8}$; ♀ $2\frac{5}{8}$ inches.

Male. “UPPERSIDE. Anterior wings semitransparent, the basal half clouded with pale buff; apex dusky brown, a number of spots across the wing which are variable, as in *neobule* and *horta*.

“Posterior wings pale brown, with a broad brown-black margin, in the middle of which is a row of small pale brown spots between the nervures, almost obsolete; the spots on the disk and at the base vary in number and size.

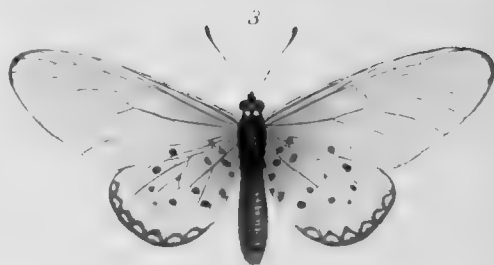
“UNDERSIDE as above, the spots on the broad marginal border of posterior wings more distinct, but minute and almost white.

“The *Female* resembles the male, but is paler and larger.

“Differs from *neobule* chiefly in the much greater breadth of the band on the posterior wings and the smallness of the spots in that band.” (H. G. S., *loc. cit.*)

Hab. Mombasa (Last).

In the Collection of Henley Grose Smith.



NYMPHALIDÆ.—ACRÆINÆ.

ACRÆA. III.

IX.—ACRÆA VESPERALIS. ♂. FIGS. 1, 2.

Acræa Vesperalis, Henley Grose Smith, "Proceedings of the Zoological Society of London," 1890, p. 466.

Exp. $2\frac{3}{4}$ inches.

"*Male*. UPPERSIDE. Anterior wings vitreous, with veins, costal margin, apical and outer marginal area, a broad, somewhat oblique band crossing the cell and thence nearly to the posterior angle, and a patch beyond the end of the cell, more or less densely dusted with fuliginous brown scales. Posterior wings semi-vitreous, the inner three-fourths pale ochreous brown, the outer fourth darker brown, which colour radiates up the veins on the disk nearly as far as the cell, a cluster of brown spots at the base, and a dark brown spot on the upper discocellular nervule at its junction with the discoidal nervule.

"UNDERSIDE. Anterior wings as above; posterior wings uniform brown, brighter than the pale brown area of the upperside; a cluster of dark brown spots at the base, followed by a row of four spots before the middle, outside which are two smaller spots beyond the cell, below the discoidal and upper median nervules respectively." (H. G. S., *loc. cit.*)

Hab. Central Africa (Bonny).

Allied to *A. Pentipolis*, Ward. In colour and general appearance it bears a superficial resemblance to the female of *Pareba Vesta*, Fabr.

X.—ACRÆA CRYSTALLINA. ♂. FIGS. 3, 4.

Acræa Crystallina, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 5, p. 167 (February, 1890).

Exp. $2\frac{3}{8}$ inches.

"*Male*. UPPERSIDE. Both wings devoid of scales except at the apex of anterior wings, where they are narrowly brownish-grey, narrowly irrorated internally with ochreous, and on the outer margin of posterior wings, where

there is a row of ochreous lunules capped with grey between the veins; the spots and markings on the underside of posterior wings showing through; both wings tinged with brown at the base.

“UNDERSIDE. Posterior wings with the outer row of marginal lunules almost white, bordered all round with black; an irregular row of black spots across the disk; two black spots on the discocellular nervules, two others inside the cell towards the base, one above the subcostal nervure, one below the median nervure, two others below the submedian and internal nervures respectively, and one above the costal nervure, the last-named five spots all near the base; the space inside the precostal nervure, the base of the wings, and abdominal fold pink, shading to white.

“The female resembles the male, but is rather larger.” (H. G. S., *loc. cit.*)
Hab. Voi River, interior of Mombasa (Last).

In the Collections of the Hon. Walter Rothschild and Henley Grose Smith.

XI.—ACRÆA BOMBA. ♂. FIGS. 5, 6.

Acræa Bomba, Henley Grose Smith, “Annals and Magazine of Natural History,” ser. 6, vol. 3, p. 128 (February, 1889).

Exp. $1\frac{7}{8}$ inch.

“*Male*. UPPERSIDE. Both wings bright brown. Anterior wings with apex broadly dark brown; four spots of the same colour, one in the cell, one at the upper end of cell, the third below the second, outside the cell, and the fourth towards the inner angle. Posterior wings with a rather broad dark brown marginal band, with five small light brown spots on the margin towards the anal angle; an irregular row of seven spots round the disk, two spots in the cell, and several small spots near the base.

“UNDERSIDE. Anterior wings paler brown, lighter towards the apex, an additional spot beyond the middle; costa, outer margin, and ends of the nervures near the apex black. Posterior wings pinkish-brown, mottled between the spots and beyond the middle with pale brown; the dark brown marginal band with pale brown oval spots between the nervures; ends of the veins, nearly as far as the middle, black.” (H. G. S., *loc. cit.*)

Hab. Namoule, near Mombasa, East Africa (Last).

In the Collection of Henley Grose Smith.

Allied to *A. Acrita*, Hew.

XII.—ACRÆA MARMORATA. ♀. Figs. 7, 8.

Exp. $2\frac{1}{2}$ inches.

Female. UPPERSIDE. Anterior wings dark brown, with a reddish tint towards the base, and more blackish on the apical third, and with yellowish-tawny spots and markings. Cell with two black spots, a small one, before the middle, just below the subcostal nervure, and a large one just beyond the middle; a third, closing the cell, is nearly lost in the dark ground-colour of the apical third. A little beyond the first spot is a long oblique black spot, extending from just before the origin of the lowest branch of the median nervure to the submedian nervure; and beyond this is a smaller spot on the inner margin. Below the second spot in the cell are two other rather large ones, the first of which is subtriangular, filling up nearly half the space between the two lower branches of the median nervure; the other spot is below the outer half of this, but is rounder, though irregular in form, and it sends off a small tooth towards the base. Between the second black spot in the cell and that at the extremity runs a yellowish-tawny band, the continuation of which occupies the upper fork of the median nervure, where it is bounded outside by a large round spot indistinctly differentiated from the ground-colour, passes round the outer side of the large subtriangular spot above described, and then expands widely on both sides of the rounder spot below, and extends on the inner margin from before the middle nearly to the hinder angle. There is also an oblique sub-apical, yellowish-tawny stripe, divided into five spots by the nervures, the second of which is very small, and a submarginal row of six spots, the lowest composed of two confluent spots. The dark apical border extends quite to the hinder angle. Incisions whitish.

Posterior wings yellowish-tawny, with black borders, with the incisions white, and a submarginal row of paler tawny dots. Base blackish, followed by a row of three black spots; there are also three whitish spots, one at the extreme base above, one within the third spot, and one outside the second, partially separating it from a thick curved stripe which it nearly touches above. Below the black spot on the inner margin of the anterior wings, commences, on the posterior wings, a row of eight black spots, four of which run straight to the middle of the hind margin, forming a right angle with the fifth, seventh, and eighth, which are turned towards the inner margin; the sixth is set much nearer the base than these; nearer the base are two more spots on the inner margin.

UNDERSIDE with all the dark markings similar, but the light ones much paler; anterior wings pink at the base, mostly yellowish-grey beyond, the darker

apical and submarginal markings light brown, only the well-defined spots being black. Subapical band white; submarginal spots yellow, except towards the apex, where they are white; towards the hinder angle they are contiguous with the pale portion of the disk, the border being less extended than on the upper side. Posterior wings white, with pale brown borders. Spots as above; an additional black spot is visible at the base, and several of the black spots near the base are partially bordered with pink. On the border is an outer row of white triangular spots capped with black, and an inner row of tawny-yellow spots.

Head and thorax black above, spotted with white, and mostly white beneath; abdomen black at the base, with a white spot on each side of the two first segments, then black on the back, and tawny on the sides of the segments, the incisions and underside white, and a row of black dots on the sides. Legs white, lined with black; palpi very large, ascending, yellow, set with short bristles.

Antennæ black.

The sexes hardly differ.

Hab. Mahobo, Madagascar.

In the Collections of the Hon. Walter Rothschild and Henley Grose Smith.

Allied to *A. Turna*, but very different in colour. This species might have been supposed to be a seasonal form of *A. Turna* had it not occurred at the same time and in the same locality.

XIII.—ACRÆA NELSONI. ♂. FIGS. 9, 10.

Acræa Poggei, var. Henley Grose Smith, "Proceedings of the Zoological Society of London," 1890, p. 466.

Exp. $2\frac{3}{4}$ inches.

Male. UPPERSIDE. Dark brown. Anterior wings with a broad, somewhat oblique, orange-tawny band running from nearly the middle of the costa towards the hinder angle, where it becomes more irregular and constricted, hardly crossing the submedian nervure. Posterior wings with a white transverse band commencing on the costa before the tip, and gradually widening to the inner margin.

UNDERSIDE similar, but rather paler; posterior wings with the basal area within the white band dull reddish, with numerous black spots.

Body black, abdomen tawny on the sides and beneath.

Hab. Aruwini.

In the Collection of Henley Grose Smith.

Closely allied to *A. Poggei*, Dew., but the white and yellow bands of our species are of much more uniform width, being especially much broader on the costa of the wings, and the orange-tawny band of *A. Poggei* curves inwardly and extends half way along the inner margin towards the base.

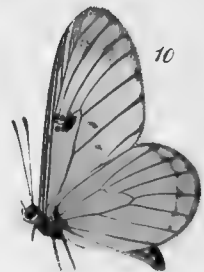
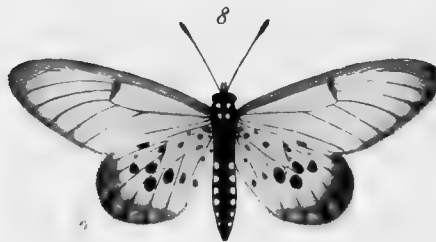
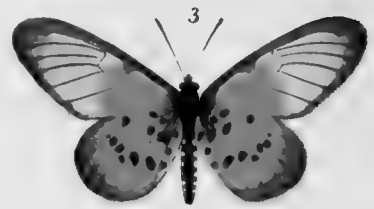
Belongs to the section *Planema*, Doubl.



NYMPHALIDÆ.

ACRÆINÆ.

ACRÆA IV.



MAN Hanhart imp.

MAN Hanhart imp.

1, 2 ACRÆA CERASA.
3, 4 " ITURINA
5 " IGOLA.

6, 7 ACRÆA ANDROMBA, ♂
8 " " ♀
9, 10 " MOMBASÆ

NYMPHALIDÆ.—ACRÆINÆ.

ACRÆA. IV.

XIV.—ACRÆA CERASA. ♀. FIGS. 1, 2.

Acræa Cerasa, Hewitson, "Exotic Butterflies," vol. ii., *Acræa*, pl. ii. fig. 10 (1861); Trimen, "South African Butterflies," vol. i. p. 139 (1887).

Exp. nearly 2 inches.

Female. UPPERSIDE. Anterior wings hyaline, slightly brownish towards the margin, base tawny as far as the cell (or rather further towards the inner margin), except between the costal and subcostal nervures; cell with a large oval transverse black spot just beyond the middle, and a longitudinal black dash between this and the base; there are also faint traces of another spot towards the end of the cell, and two black spots below the two lower submedian nervules.

Posterior wings tawny, with the hind margin dusky hyaline, most broadly on its upper half. There is a large black basal spot, marked with tawny; two large black spots on the costa, the second opposite the upper extremity of the cell, two more in the cell, one basal, the other medial, and about four basal spots below the cell. The lower part of the upper discocellular nervule is marked with a black streak. Beyond and below the second costal spot is a curved row of three black spots, the lowest resting on the lower extremity of the cell, and below this is a transverse row of four more spots, extending to the inner margin, on which, just above the level of these spots, is a small black dash. There is also a submarginal row of seven smaller black spots, increasing in size from the costa to the anal angle.

UNDERSIDE similar, slightly iridescent, but with no tawny colouring, except so far as this shows through.

Body black, palpi tawny, tipped with black, legs striped with tawny, and a tawny spot before the extremity of the abdomen beneath.

Hab. Natal.

In the Hewitson Collection (British Museum), and in those of H. Grose Smith and R. Trimen.

A scarce and local species, for which the only locality mentioned by Mr. Trimen is Pinetown, Natal. He considers it to be most nearly allied to the West African *A. Quirina*, Fabr. He describes the posterior wing of the female as having, "near hind margin, between third median nervule and submedian nervure, a row of three very small black spots." We do not find any indications of these in our specimen; but as Mr. Trimen adds that the butterfly varies considerably both in size and in the number of spots, their absence is probably not of any importance.

XV.—ACRÆA ITURINA. ♂. FIGS. 3, 4.

Acraa Iturina, Henley Grose Smith, "Proceedings of the Zoological Society of London," 1890, p. 465.

Exp. $1\frac{7}{8}$ inches.

“*Male*. UPPERSIDE. Both wings vitreous, with dusky-brown veins, anterior wings with costal margin, apex, outer margin, and veins dusted with greyish-brown scales, basal third densely dusted with bright rufous scales, black at the base, a cluster of black confluent spots at the upperside of the cell about its middle. Posterior wings with the inner two-thirds bright rufous, paler on the inner margin above the anal angle; the rufous space does not extend to the costal margin or beyond two-thirds of the central area, except towards the anal angle, where it approaches nearer to the outer margin; at the base is a cluster and beyond the cell a row of seven black spots, the fourth being out of line, and nearer to the outer margin; between the basal cluster and this row are two spots, one above the subcostal nervure, the other on the inner margin.

“UNDERSIDE devoid of scales, except the spots on the posterior wings as on the upperside.” (H. G. S., *loc. cit.*)

Hab. Great Forest of Central Africa (Bonny).

In the Collection of Henley Grose Smith.

“Nearest to *A. Cerasa*, Hew., but a larger insect with more elongate wings, the rufous area comparatively smaller, and on posterior wings different in shape, and the arrangement of the spots on both wings is different.” (H. G. S., *loc. cit.*)

XVI.—ACRÆA IGOLA. ♂. FIG. 5.

Acraa Igola, Trimen, "South African Butterflies," vol. iii. p. 379 (1889).

Exp. rather more than $1\frac{3}{4}$ inches.

Male. UPPERSIDE. Reddish-tawny, anterior wings with the costa, apex, and hind margin blackish, a black dash at the end of the cell, apical third sub-vitreous within the borders, crossed by broad blackish veins; a short black dash at the base below the cell. Posterior wings rather brighter red, with black unspotted borders, radiating inwards on and between the nervures; inner margin inclining to yellowish. The black spots are confused towards the base above, and will therefore be described from the underside.

UNDERSIDE glazed, with the markings of the upper surface showing through. Posterior wings with the base, inner margin and border testaceous; the latter marked with black veins, between which stand dark spots crossed by a line,

shaped something like the Greek letter ϕ . Base with two black spots, followed by a row of three, of which the middle one, in the cell, is the smallest; below the cell are four more nearly confluent spots near the base. Just beyond the middle of the cell is a large oblique oval spot, directed inwards and upwards, and surmounted by a black dot; and there are two more spots, placed at each end of the upper discocellular nervule. Beyond these a row of eight more spots curves round the cell from the costa to the inner margin; of these, spots 2-5 are much smaller than the others, spots 3-5 being reduced to mere dots on the upperside.

Body black, palpi yellow, with a black line at the base above, and fringed with long black hairs, which form a large tuft at the extremity; legs yellow, base of femora, and a line above them, black; a pale spot on the vertex behind the base of the antennæ, abdomen with a row of pale spots on each side, and pale beneath.

Hab. Zululand.

In the Collections of Henley Grose Smith and R. Trimen.

Allied to *A. Iturina*, from which the dark borders of the wings will at once distinguish it. Both sexes are described in detail by Mr. Trimen (*loc. cit.*).

XVII.—ACRÆA ANDROMBA. ♂. FIGS. 6, 7. ♀. FIG. 8.

Acræa Andromba, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 7, p. 124 (1891).

Exp. ♂ $1\frac{1}{4}$ inches; ♀ $2\frac{1}{8}$ inches.

"Male. UPPERSIDE. Resembles *A. Obeira*, Hew. (*A. Pira*, Guenée), but is smaller; the anterior wings are narrower, and the posterior wings rounder, the rufous basal colouring on the anterior wings is paler, and extends nearly to the end of the cell and to the posterior angle. On the posterior wings the rufous area extends over nearly all the wings, especially towards the anal angle, where it reaches the margin, the spots at the base and in the irregular row across the disk are comparatively smaller, the dark marginal band is more defined, in which, between the veins and touching the margin, is a row of six nearly round bright rufous spots. In *A. Obeira* these spots are only three or four in number, are situate towards the anal angle, and are more elongate in shape."

UNDERSIDE. On "the posterior wings the marginal row of rufous spots is more distinct than in *A. Obeira*."

“*Female*. Much paler, the coloured area of both wings being stramineous, and extending over nearly the whole of the posterior wings.” (H. G. S., *loc. cit.*)

Hab. Madagascar, N.W. Coast (Last).

In the Collections of H. Grose Smith and The Hon. Walter Rothschild.

Allied to *A. Obeira*, Hew., from Madagascar.

XVIII.—ACRÆA MOMBASÆ. FIGS. 9, 10.

Acræa Mombasæ, Henley Grose Smith, “Annals and Magazine of Natural History,” ser. 6, vol. 3, p. 127 (1889).

Exp. ♂ $2\frac{1}{2}$ inches; ♀ $2\frac{7}{8}$ inches.

“Both wings transparent pale brown, the nervures, a broad space at the apex and round the outer margin of anterior wings, and the posterior wings darker brown; the irregular band of spots across the middle and the spot below the cell of anterior, and the submarginal band of posterior wings brownish-grey, and much less distinct than in *A. Rabbaïæ*, Ward; the marginal band on posterior wings broader and growing nearly obsolete towards the anal angle; the markings and nervures in *A. Rabbaïæ* are much darker, almost black, and more distinct; the spot below the cell on anterior wings is larger, the submarginal band on posterior wings is brighter and more completely defined towards the anal angle.” (H. G. S., *loc. cit.*)

Hab. Mombasa, E. Africa (Last).

In the Collections of H. Grose Smith and The Hon. Walter Rothschild.

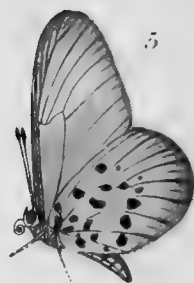
A. Mombasæ strongly resembles *A. Rabbaïæ*, Ward, from Ribé; but a uniform series exhibits sufficient differences to warrant it being considered a distinct species. It may, however, be a seasonal or local form of *A. Rabbaïæ*.



ACREIA PHAEDRUS

ACREIA

ACREIA



Ac. phaedrus, Phaedrus, 1859

Ac. phaedrus, Phaedrus, 1859

ACREIA PHAEDRUS
P. " " "
ACREIA PHAEDRUS

6.7. ACREIA INSULARIS.
8. " " " " " "
9. " " " " " "

NYMPHALIDÆ.—ACRÆINÆ.

ACRÆA. V.

XIX.—ACRÆA LIA. ♂. FIGS. 1, 2, ♀. FIG. 3.

Acræa Lia, Mabille, "Bulletin de la Société Philomathique de France," ser. 7, vol. 3, p. 132 (1879). Grandidier, "Histoire de Madagascar: Lépidoptères," I., p. 97, pl. 9A, figs. 8, 8A (1885-1887).

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE. Anterior wings hyaline, with the costa and hind margin smoky brown; base red to half the length of the cell, and obliquely to the inner margin nearly to the hinder angle. Posterior wings red, base and inner margin, except at the anal angle, greyish-brown, spotted with black; hind margin bordered with black. Two black subcostal spots, two in and one at the extremity of the cell, and a row of large confluent spots curving round from the base below and beyond the cell; above the submedian nervure is a large spot, connected with the band, and below it, nearer the base, are some small spots nearly lost in the dark colour of that part of the wing.

UNDERSIDE. Anterior wings as above; posterior wings light pink, with large red spots placed within most of the black ones; black border edged outside between the nervures with a row of buff equilateral triangles, and inside with a row of large red spots.

Body black, with two yellowish and two white spots on the front of the thorax; abdomen spotted with white on the back and with yellow on the upper part of the sides; below yellowish, with three macular longitudinal black stripes; palpi beneath and legs yellowish.

Female similar, but with the red colour replaced by tawny. The underside of the posterior wings is whitish, with the red spots within the border replaced by dull orange ones; those nearer the base obsolete.

Hab. S.W. Madagascar (Last).

In the Collection of Mr. H. Grose Smith.

XX.—ACRÆA MACULIVENTRIS. ♀ FIGS. 4, 5.

Exp. $2\frac{1}{2}$ inches.

Female. UPPERSIDE dull reddish-tawny, anterior wings with the apical half dull smoky-brown, the spaces between the nervures smoky hyaline, except on the borders. Posterior wings with blackish borders, and the extremity of the nervures, and short streaks between them, black; two subcostal spots, two contiguous ones at the base of the cell, an oblique one on its lower side, and two smaller round ones at its upper extremity, and another small one beyond the uppermost of these. Below the cells the basal part of the wing shades into yellowish-grey; there are two spots at the base, and two rows of three each, which latter converge towards each other at the inner margin; there is also another small spot in the fork of the two upper submedian nervures.

UNDERSIDE iridescent, greyish where the wings are reddish above, with the spots, dark nervures and intermediate streaks marked, but with no distinct borders.

Hab. South Africa.

In the Collection of Mr. H. Grose Smith.

Belongs to the group of *A. Horta*, Linn.

XXI.—ACRÆA INSULARIS. ♂. FIGS. 6, 7.

Acraea Insularis, E. M. Sharpe, "Proceedings of the Zoological Society of London," (1893) p. 555.

Exp. $1\frac{5}{6}$ inches.

Male. UPPERSIDE dark brown, with orange markings, the space between those on the anterior wings darker than the rest of the wing. Anterior wings with a broad orange band just before the end of the cell, preceded by a narrower yellowish one in the cell; below the orange band is a large oval spot, between the two lower median nervures, and between this and the submedian nervure is a sagittate spot directed towards the hind margin. Towards the apex are two irregularly-shaped spots, the lower one paler and nearer the hind margin than the other. Posterior wings with a broad brown border, and the base and inner margin greyish-brown, the rest of the wing filled up with orange, which shades into yellow on the inner side. There are two large black spots in the cell, two smaller ones on the discocellulars, three beyond the cell,

the middle one oval and larger than the others, and two large ones above and three small ones below the submedian nervure.

UNDERSIDE. Fore wings as above, but the spots are buff, dusted with reddish. Hind wings greenish-grey, with broad borders; the spots as above, except that there are also two large subcostal ones, and three spots above as well as below the submedian nervure.

Body black above, yellowish below, legs black, lined with yellowish.

Hab. St. Thomas, West Africa (Newton).

In the Collection of the Lisbon Museum.

Taken at St. Nicolau at a height of 800 metres above the sea by Senhor Francesco Newton.

Belongs to the group of *A. Bonasia*, Fabricius.

This and the two following species were submitted to Miss Sharpe for determination by Professor Barboza de Bocage, the Director of the Lisbon Museum; and we are much obliged to Miss Sharpe for kindly giving us the opportunity of figuring them.

XXII.—ACRÆA NEWTONI. ♂. FIGS. 8, 9.

Acræa Newtoni, E. M. Sharpe, "Proceedings of the Zoological Society of London" (1893), p. 554.

Exp. $1\frac{5}{8}$ inches.

Female. UPPERSIDE smoky black. Anterior wings with a subapical band of three smoky hyaline spots, divided by the nervures, and there is another similar but rather larger spot between the two lower median nervules. Posterior wings with three or four black spots towards the base, nearly lost in the ground-colour, and a broad orange-red band with indented edges, beyond the cell, which becomes obsolete towards the inner margin.

UNDERSIDE. Anterior wings paler and more glossy. Posterior wings with the band of a pale pink, edged within by a row of black spots. Outside the band the wing is greyish-brown; within it is of a slightly greenish-grey, with well-marked black spots, one in the basal cell, two above the discoidal cell, two in it, and a third at the extremity, and four below the cell towards the base.

Body black, spotted with yellow; palpi white, with black hairs; legs whitish, with the tarsi reddish-brown.

Hab. St. Thomas, West Africa (Newton).

In the Collection of the Lisbon Museum.

Taken at St. Nicolau, at a height of 800 metres above the sea, by Senhor Francesco Newton.

Somewhat resembles *A. Pencleos*, Ward, as remarked by Miss Sharpe, but with narrower wings.

XXIII.—ACRÆA NIOBE. ♂. FIG. 10.

Acræa Niobe (Staudinger, MS.), E. M. Sharpe, "Proceedings of the Zoological Society of London" (1893), p. 554.

Exp. $2\frac{1}{3}$ inches.

Male. UPPERSIDE brownish-black, subvitreous, with suffused darker brown borders, and large black spots. Anterior wings with an oblong black spot near the base of the cell, and large roundish spots at and before its extremity; there is a subapical band formed of three confluent spots, and there are large spots between the median nervules towards their origin, and two above the submedian nervure, one towards the base, and the other towards the hind margin. Posterior wings with the basal area covered below the subcostal nervure by a mass of confluent spots; above this nervure is a detached spot near the base. Beyond is a row of eight spots on the disk, the three nearest the inner margin almost confluent.

UNDERSIDE similar, but rather paler and more glossy, and with the spots towards the base of the hind wings more separated. The anterior wings are rather long, with the hind margin very oblique and slightly concave; the posterior wings are short, the hind margin being very slightly convex.

Thorax black above, head and undersurface greyish-brown, collar red; abdomen with the basal half black above, with two small red spots on each side; hinder half red, except at the extremity; there is a black spot towards each extremity of the red colouring, the second confluent with the dark apex. Abdomen beneath red, with the base and two transverse bands black, the last band much narrower than the other.

Hab. St. Thomas, West Africa (Newton).

In the Collections of Dr. Staudinger, and of the Lisbon Museum.

Taken at St. Nicolau, at a height of 800 metres above the sea, by Senhor Francesco Newton.

An aberrant species belonging to the section *Gnesia*, Doubleday.



1. ACRÆA UNIMACULATA ♂
2. " " " " ♀
3. " " " " ♀
4. " " " " ♀
5. " " " " ♀
6. " " " " ♀
7. " " " " ♀
8. " " " " ♀
9. " " " " ♀
10. " " " " ♀
11. " " " " ♀
12. " " " " ♀

7. 8. ACRÆA DISJUNCTA ♂
9. " " " " ♀
10. " " " " ♀
11. " " " " ♀
12. " " " " ♀



NYMPHALIDÆ.—ACRÆINÆ.

ACRÆA. VI.

XXIV.—ACRÆA UNIMACULATA. ♂. FIG. 3. ♀. FIGS. 1, 2.

Acræa Unimaculata, Female, H. Grose-Smith, "Novitates Zoologicæ," Vol. V., p. 350 (August, 1898).

Exp. ♂. $1\frac{7}{8}$ inches, ♀. 2 inches.

Male. Differs from *A. Quirina*, Fabr., in the absence of spots on both sides of both wings, except on the underside of the posterior wings, where there is one spot in the cell near the base. On the upperside of the anterior wings the basal tawny area is more extended, its outer edge is marked by an indistinct dusky band and the upper part of the disco-cellular nervules is marked by a narrow dark grey line. On the posterior wings the tawny area extends lower towards the anal angle. Both wings are dusky grey at the base.

In the female the outer edge of the tawny area, on the upperside of the anterior wings, is not marked by the dusky band of the male, and on the disc of the posterior wings the tawny area is less extended. On the Plate the female is designated as the male, and *vice versâ*, the male being No. 3 and the female Nos. 1 and 2.

Hab. Kabras, Uganda Protectorate, December, 1896 (Dr. Ansorge).

In the Collection of the Hon. Walter Rothschild.

Professor Aurivillius places this species as a synonym of *A. Humilis*, Sharpe, but the latter is a totally different species, and will be figured in a subsequent Plate.

XXV.—ACRÆA DISSOCIATA. ♂. FIGS. 4, 5. ♀. FIG. 6.

Acræa Dissociata, H. Grose-Smith, "Novitates Zoologicæ," Vol. V., p. 350 (August, 1898).

Exp. ♂. $2\frac{1}{8}$ inches, ♀. $2\frac{1}{4}$ inches.

Male. UPPERSIDE. Anterior wings ashy grey, semihyaline; a narrow pink streak in the middle of the inner margin. Posterior wings pink, except at the

base, which is rather broadly dusky grey; an irregular row of black spots surrounds the cell, of which the spot between the two upper median nervules is out of line and nearer the margin, and the spot above it is nearer the cell; a rather large spot in the cell, a spot above the cell, and a cluster of spots near the inner margin towards the base, some of which merge in the dusky basal area; outer margin narrowly dark grey.

UNDERSIDE. Anterior wings pinkish dull brown, with a small spot at the end of the cell, an irregular row of six spots across the disc, and another below the submedian nervure. Posterior wings pale tawny, with a basal broad pink band extending along the inner margin nearly to the anal angle; the disc is traversed by a very broad chestnut-brown band; the sub-basal and discal spots as on the upperside.

Female. UPPERSIDE. Dusky brownish-grey on the anterior wings, slightly paler in the middle of the inner margin, the spots on the underside showing indistinctly through the wings. Posterior wings dusky brown with spots as in the male, the base broadly, the outer margin narrowly, brownish-grey. UNDERSIDE differs little from the male, but the anterior wings are scarcely tinged with pink, and the posterior wings are paler.

Hab. Patsho, Nandi country, Uganda Protectorate, December, 1896 (Dr. Ansorge and Mr. Legros).

The male is in the Collection of the Hon. Walter Rothschild, and both sexes (types) are in Mr. Grose-Smith's Collection.

Professor Aurivillius places this species as a synonym of *A. Asboloplintha*, Karsch, but whether correctly so I am unable to say.

XXVI.—ACRÆA DISJUNCTA. ♂. FIGS. 7, 8.

Acraa Disjuncta, H. Grose-Smith, "Novitates Zoologicæ," Vol. V., p. 351 (August, 1898).

Exp. $1\frac{5}{8}$ inches.

Male. UPPERSIDE. Dark brown. Anterior wings with a pale tawny band crossing the wings as in *A. Cydonia*, Ward, but divided between the two upper median nervules by a blackish-brown irregular band which partially covers the interspace between the two upper median nervules, but is narrower than in *A. Cydonia*, and *A. Flava*, Dewitz. Posterior wings with the basal three-fourths pale brown and dusky at the base, the outer fourth dusky dark brown.

UNDERSIDE. With the pale tawny band on the anterior wings indistinct, and divided by the dark brown bar as on the upperside. Posterior wings dull brown, with the disc crossed by a very indistinct paler area; seven minute spots in the basal area, of which one is in the cell, two above and four below it.

Hab. Nandi country, December, 1896 (Dr. Ansorge).

In the Collection of the Hon. Walter Rothschild.

Nearest to *A. Cydonia* and *A. Flava*, but smaller than either of those species.

XXVII.—ACRÆA ANSORGEI. ♂. FIGS. 7, 8.

Acræa Ansorgei, H. Grose-Smith, "Novitates Zoologicæ," Vol. V., p. 351 (August, 1898).

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE. Anterior wings dark brown, with a transverse rather bright tawny band from the costa crossing the end of the cell, thence becoming wider to the inner margin, below the lowest median nervule extending outwardly to the outer angle, and inwardly, below the submedian nervule, nearly to the base; towards the apex is a bright tawny spot near the costa, divided into three by the veins, and a quadrate spot above the upper median nervule nearer the outer margin. Posterior wings bright tawny, becoming dusky at the base.

UNDERSIDE. Dusky pale brown, with the transverse tawny band less distinct, beyond which is a broad brownish-black irregular band crossing the wings obliquely from the costa at the end of the cell to the middle median nervule, where it terminates some distance from the outer margin; the subapical spots beyond it are less distinct. Posterior wings with the disc crossed by an indistinct irregularly undulated dusky brown band, inside which but outside the cell are two small black spots, a similar spot in the middle of the cell, two in the interspace above the subcostal nervule, one on the shoulder, and six or seven others near the inner margin below the base of the cell.

Hab. Nandi Station, Uganda Protectorate, December, 1896 (Dr. Ansorge).

In the Collection of the Hon. Walter Rothschild.

I described this specimen as a female, but on further examination I believe it to be the male. Possibly it is the male of the next species.

XXVIII.—ACRÆA CONJUNCTA. ♀. FIGS. 11, 12.

Acræa Conjuncta, H. Grose-Smith, "Novitates Zoologicæ," Vol. V., p. 351 (August, 1898).

Exp. $1\frac{1}{2}$ inches.

Female. UPPERSIDE. Both wings dull brown. Anterior wings with a transverse angulated tawny band, resembling the band of *A. Ansorgei*, but not extending to the costal margin or becoming wider to the inner margin; the subapical spots as in *A. Ansorgei*, but smaller. Posterior wings crossed in the middle by a suboval tawny band, extending from the costal margin to the submedian nervure; in this band are a black spot near the costa and two smaller spots, one above and the other below the discoidal nervule, the basal spots on the underside faintly visible.

UNDERSIDE. Both wings resemble *A. Ansorgei*, but on the posterior wings the space beyond the undulated band is much darker; the spots are arranged as in *A. Ansorgei*.

Hab. Nandi Station, Uganda Protectorate, December, 1896 (Dr. Ansorge).

In the Collection of the Hon. Walter Rothschild.



PLATE 104

ACRÆIDÆ

ACRÆA VI



PLATE 104

West. Newman. 1861

1. ACRÆA HUMILIS ♂
3 " " ♀
4 " SUVA ♂

5. ACRÆA QUIRINALIS ♂
6 " " ♀
7. ACRÆA PELASGICA ♂

NYMPHALIDÆ.—ACRÆINÆ.

ACRÆA. VII.

XXIX.—ACRÆA HUMILIS. ♂. FIGS. 1, 2. ♀. FIG. 3.

Acræa Humilis, Sharpe, "Annals and Magazine of Natural History," Ser. 6, Vol. XIX., p. 582 (1897).

Exp. $1\frac{5}{8}$ inches.

Male. UPPERSIDE. Anterior wings transparent in the middle, rather broadly dusky brownish-grey at the base, along the costa, at the apex, and the outer and inner margins. Posterior wings biscuit-coloured in the middle, broadly margined outwardly by dark brownish-grey, the basal half of the cell and inner margin grey with a cluster of black spots in the cell and above and below it. UNDERSIDE. Anterior wings as above, but tawny at the base of the anterior wings, with a row of short grey lines, rather indistinct, between the veins in the outer marginal dark area.

Female. "Quite transparent; the costa, hind margin, inner margin, nervules, and base of wing dusky brown. Hind wing exactly like the fore wing. UNDERSIDE very similar to the UPPERSIDE, the dusky shading being rather of a warmer brown. At the base of the hind wing this warm brown colour is more pronounced, and there is one black spot between the sub-median nervure and the first median nervules; another minute black spot close to the base."

Hab. Ntebi, Uganda, November to December, 1895.

In the Collections of Mr. F. J. Jackson and Mr. Grose-Smith.

The specimen figured on the Plate as the male was lent to me as such by Mr. Jackson through Miss Sharpe, but I entertain considerable doubt as to whether it really is the male of that species. I am disposed to think it is a distinct species, and further, that the type specimen of *A. Humilis*, which Miss Sharpe has labelled as the female, is also a male.

XXX.—ACRÆA CUVA. ♀. FIG. 4.

Acræa Cuvæ, H. Grose-Smith, "Annals and Magazine of Natural History," Ser. 6, Vol. XIII., p. 126 (1889); "Rhopalocera Exotica," Vol. I., Pl. Acræa 1. Fig. 5.

Exp. $2\frac{1}{4}$ inches.

Female. UPPERSIDE. Anterior wings transparent except in the lower part of the cell and beneath it to the inner margin, where it is irrorated by dusky white scales, and at the base where it is dusky brown.

Posterior wings irrorated by dusky white scales, brownish at the base, and not quite reaching to the outer margin, with an irregular row of black spots on the disc as in the male. UNDERSIDE as above.

Hab. Zanzibar (Last).

In the Collection of Mr. Grose-Smith.

Professor Aurivillius places this species as a variety of *A. Dammii*, Voll., but the larger number of spots on the posterior wings of both sexes of *A. Cuvæ* and the different arrangement and size of the spots show it to be a distinct species.

XXXI.—ACRÆA QUIRINALIS. ♂. FIGS. 5, 6.

Acræa Quirinalis, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 544 (December, 1900).

Exp. $1\frac{5}{8}$ inches.

Male. UPPERSIDE. Anterior wings differ from *A. Iturina*, Gr.-Sm., in the absence of the cluster of dark scales in the cell, and the more extended rufous colouring of the basal half of the wings, which is paler than in *A. Iturina*: on the posterior wings it differs from *A. Iturina* in the basal rufous colouring being less extended, the discal row of spots is further from the cell, the spots are smaller and the large spot at the end of the cell between the two upper median nervules of *A. Iturina* is absent.

UNDERSIDE does not differ from the UPPERSIDE.

Hab. Usukama, south of Lake Victoria Nyanza.

In the Collection of Mr. Grose-Smith.

It is smaller than *A. Iturina*, and intermediate between that species and *A. Quirina*, Fabr.

XXXII.—ACRÆA POMPONIA. ♂. FIGS. 7, 8.

Acræa Pomponia, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 545 (1900).

Exp. $1\frac{5}{8}$ inches.

Male. UPPERSIDE. Both wings dark brown, nearly black; anterior wings with an oblique hyaline band of three spots before the apex, and three oval rufous-brown spots on the disc between the median nervules, the upper spot minute, the lowest the largest; posterior wings crossed about the middle by an irregular rufous-brown band.

UNDERSIDE. Anterior wings with the rufous-brown spots much less conspicuous, the apex and outer margin fulvous crossed by dark rays between the veins; posterior wings with the basal two-thirds rather bright pale fulvous, darker towards the base, the outer third crowned by an irregular black band with a series of black rays between the veins to the outer margin, bordered on either side by pale fulvous markings, one black spot in the cell towards its base, and a series of other spots of irregular size in the basal half of the wings.

Hab. Usukama.

In the Collection of Mr. Grose-Smith.

Nearest to *H. Peneleos*, Ward, but a smaller insect; the rufous-brown band crossing the posterior wings is narrower, and the anterior wings are more opaque.

XXXIII.—ACRÆA PELASGIUS. ♂. FIGS. 9, 10.

Acræa Pelasgius, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 545 (1900).

Exp. $2\frac{1}{8}$ inches.

Male. UPPERSIDE. Anterior wings greyish-brown semi-vitreous, three vitreous spots placed obliquely before the apex, outside which and following the contour of the outer margin to the outer angle is a series of brown rays or markings between the veins, the uppermost the shortest, the marking between the two lowest median nervules the most elongate; those on either side of the submedian nervure confluent. Posterior wings bright brown, with marginal dark rays along the veins and in the interspaces, four black spots in the cell; numerous others clustered round the cell and towards the base.

UNDERSIDE. Anterior wings bordered outwardly all round by a dusky brown band very broad at the apex, crossed by the dark veins and rays in the

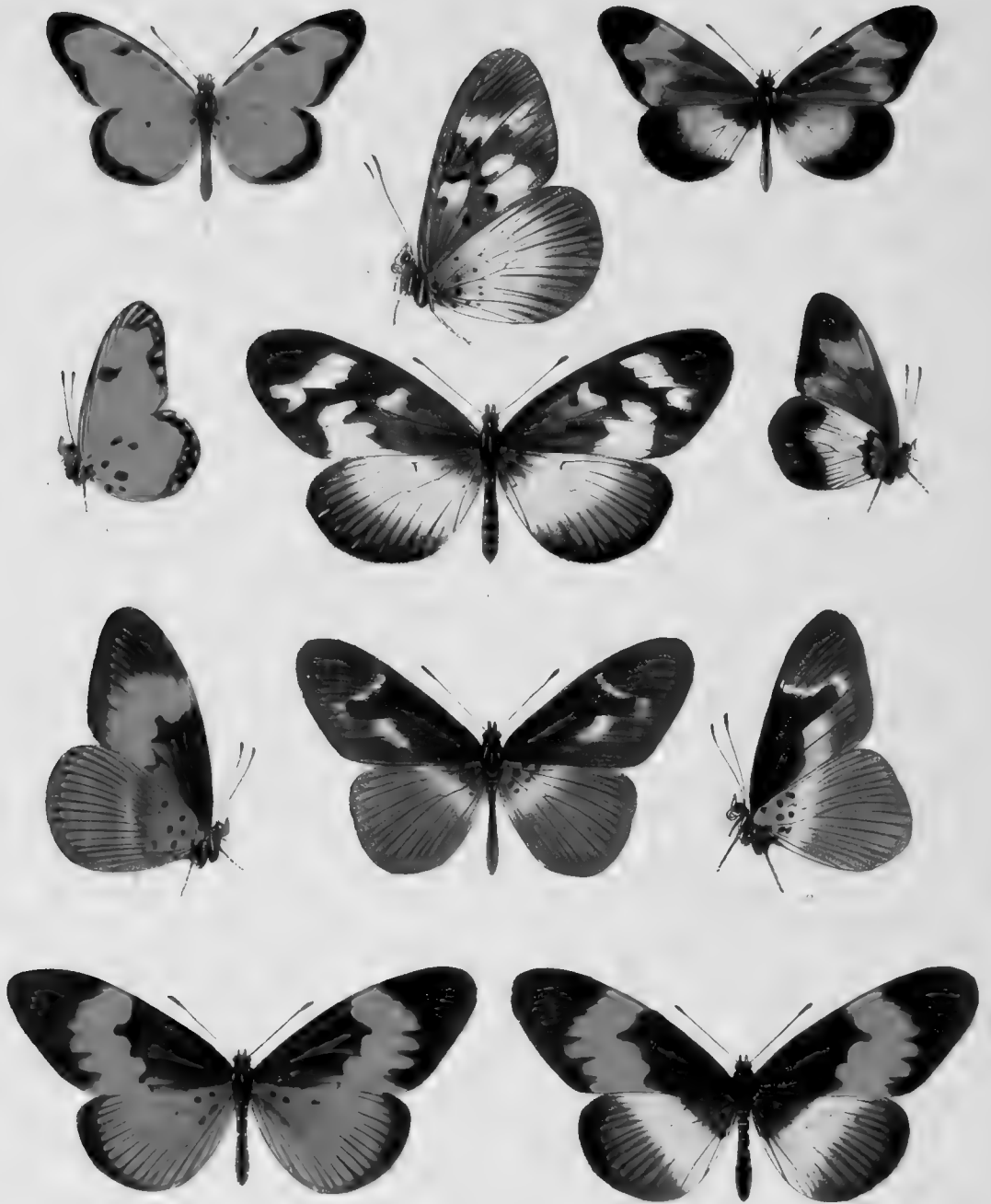
interspaces, the subapical oblique vitreous band as on the upperside, the brown rays or markings of the upperside scarcely visible; posterior wings pinkish-brown, paler towards the margin, the veins and rays crossing the disc darker brown, a conspicuous pale biscuit-coloured band crosses the disc just beyond the cell which it partially invades; on the inner edge of the band is a row of round black spots of unequal size, two spots in the cell and several others clustered around.

Hab. Port Alice, Uganda (Ansorge).

In the Collection of the Hon. Walter Rothschild; nearest to *A. Parrhasius*, Fabr.



NOUVEAU MANUEL DE
 L'ÉLEVAGE
 DES PAPILIONS



West, Noemad: m7

- | | |
|------------------------|--------------------------|
| 1. 2. ALCALA TORUNA. ♀ | 3. 4. CLAUDEA LARABEA. ♀ |
| 5. 6. ALCALA TORUNA. ♀ | 7. 8. " ALICIA. ♀ |
| 9. 10. SUPSERENA. ♀ | 11. 12. " " ♀ |

NYMPHALIDÆ.—ACRÆINÆ.

ACRÆA. VIII.

XXXIV.—ACRÆA TORUNA. FIGS. 1, 2.

Acræa Toruna, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 546 (December, 1900).

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE. Anterior wings differ from those of *A. Johnstoni* Godm. in the ground colour of the basal three-fourths of the wings being uniformly bright rufous brown; in place of the two pale tawny spots towards the apex of *A. Johnstoni* is a broad pale tawny band, divided into four by the veins, which crosses the wings obliquely; the lowest of the four divisions is elongated outwardly, and inwardly by a narrow line along the upper median nervule to the end of the cell, inside which is a small triangular tawny spot; the two pale tawny spots on the disc on either side of the lowest median nervule are closer together than in *A. Johnstoni*; the pale band on the posterior wings is brighter and better defined on its inner edge by the dark rufous brown basal area.

UNDERSIDE. Anterior wings paler than above. Posterior wings with the base bright chocolate brown, edged externally by an irregular row of confluent black spots, a small spot before the precostal nervure and two others at the base; otherwise as on the upperside.

Female. UPPERSIDE. Basal half bright rufous brown, followed by a transverse bright tawny band, which crosses the wings from the costa to the inner margin, elongated on each side in the region of the upper median nervule, a minute spot at the end of the cell as in the male, the area beyond the band dark brown; posterior wings as in the male.

UNDERSIDE. Anterior wings with the basal three-fourths paler than on the upperside, the transverse median pale band being scarcely distinguishable.

Hab. Kimbugu, Toru (Ansorge).

In the Collection of the Hon. Walter Rothschild.

XXXV.—ACRÆA ALTHOFFI. ♀. FIGS. 3, 4.

Acræa Althoffi, ♂, Dewitz, "Ent. Nachr.," 15, p. 102, Plate 1, Fig. 5.
♀, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 544 (1900).

Exp. $2\frac{1}{2}$ inches.

Female. UPPERSIDE. Anterior wings dusky brownish-grey with an obscure greyish-white diffused band towards the end of the cell, edged externally by an irregular dusky black bar and an obscure dark grey spot on its inner side, the transverse and oblique rufous bands of the male are represented by similar greyish-white bands edged internally by greyish-black, one black spot below the cell; posterior wings dusky brownish-grey at the base, beyond which is a broad irregular sordid white band, thence to the outer margin dusky brownish-grey, with submarginal whitish streaks in the interspaces crowned by dusky dark grey rays, which extend partially into the central sordid white area.

UNDERSIDE. Paler, with conspicuous greyish-black spots in the middle and towards the end of the cell and below it, a narrow marginal white streak in each interspace, which is duplicated below the lowest median nervule.

On the posterior wings the central white band becomes indistinct, the basal spots are smaller and less numerous than in the male, the subconical white streaks in the interspaces on the outer margin as on the upperside, but the dark rays crowning them extend across the disc nearly to the cell.

Hab. Port Alice, Uganda (Ansorge).

In the Collection of the Hon. Walter Rothschild.

XXXVI.—ACRÆA SUBSERENA. ♂. FIGS. 5, 6.

Acræa Subserena, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 544 (1900).

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE. Both wings bright fulvous with black margins as in *A. Terpsichore* Linn.; anterior wings with a rather large spot in the middle of the upperside of the cell, and another much larger quadrate spot at the end of the cell, partially elongated outwardly along the upper median nervule; the black outer marginal band is deeply indented on its inner side between the discoidal nervules; posterior wings with minute fulvous dots near the outer

margin in the black area, and a narrow bar on the upper disco-cellular nervule, the five large spots on the underside showing through the wings as dark tawny.

UNDERSIDE. Anterior wings with the black outer marginal border strongly marked with light fulvous rays between the veins; posterior wings paler light fulvous, the outer marginal black border very bright and well defined, with small fulvous markings on the margin, inside which, between the median nervules, are four minute fulvous lines arranged in pairs, one spot towards the base of the cell, one on the disco-cellular nervule, one above the subcostal nervure, three below the cell near the abdominal margin and one above; several minute spots at the base.

Hab. Sierra Leone.

In the Collection of the Hon. Walter Rothschild.

XXXVII.—PLANEMA PARAGEA. ♂. FIGS. 7, 8.

Planema Paragea, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 547 (1900).

Exp. $2\frac{1}{4}$ inches.

Male. UPPERSIDE. Both wings cinereous grey, the anterior rather darker than the posterior wings. Anterior wings with a narrow irregular obscure greyish-white band crossing the discoidal nervules obliquely, thence turning at right angles between the two upper median nervules; another narrow band of the same colour crosses the disc below the cell from the middle median nervule to near the inner margin, where it becomes obsolete. Posterior wings with an obscure dusky white band crossing the wings before the middle, the basal spots on the underside faintly visible.

UNDERSIDE. Resembles the upperside, but on the anterior wings the greyish-white bands are broader, and the space between them and the base is darker grey; on the posterior wings the basal area is brown, with a cluster of black spots arranged irregularly within it.

The female resembles the male, but is larger, and the greyish-white bands on the anterior wings are broad and more distinct.

Hab. Port Alice, Uganda (Ansorge).

In the Collection of the Hon. Walter Rothschild.

Belongs to the group of *A. Gea* Fabr.

XXXVIII.—PLANEMA ALICIA. ♂. FIGS. 9, 10. ♀. FIG. 11.

Planema Alicia, H. Grose-Smith, "Novitates Zoologicæ," Vol. VII., p. 546 (1900).

Exp. $2\frac{5}{8}$ inches.

Male. UPPERSIDE. Anterior wings crossed by a bright fulvous band resembling the band in *P. Excisa* Butl., the rest of the wings darker than in that species. Posterior wings bright fulvous on the disc, becoming more rufous towards the base and darker at the apex, the dark area narrowing towards the anal angle; dark rays between the veins from the outer margin to near the cell.

UNDERSIDE. Anterior wings with the inner edge of the fulvous band defined by a very zigzag band, more irregular than in *P. Excisa*; posterior wings dark chocolate brown, becoming rufous at the base, with a badly defined pale band crossing the middle of the wings beyond the cell, two spots in the cell and a cluster of spots round it, but all much smaller and less regularly placed than in *P. Excisa*, in which a regular band of spots crosses the wings a little before the middle.

Female. UPPERSIDE. Anterior wings do not differ from the male; posterior wings with the ground colour the same as the anterior wings, but rather paler, the wings crossed about the middle by a broad irregularly defined white band, which is narrowest on the costal margin.

UNDERSIDE. As in the male, but on the posterior wings the indistinct pale band is broader and whiter.

Hab. Port Alice, Uganda (Ansorge).

In the Collection of the Hon. Walter Rothschild.

Very near to *P. Aurivillii* Stgr., but with a much broader pale band, and a smaller number of basal spots on the posterior wings.



THE BUTTERFLY COLLECTION
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NYMPHALIDÆ.—NYMPHALINÆ.

CETHOSIA I.

I.—CETHOSIA ANTIPPE. ♀. FIGS. 1, 2.

Exp. $3\frac{2}{3}$ inches.

Female. UPPERSIDE. Both wings blue-black suffused with purple, with a broad row of white spots; the row on anterior wings consists of six spots, forming a curve across the middle of the disk to near the posterior angle, where there is a narrow white line on the inner margin, the first three spots elongated, the others nearly square, all somewhat emarginate outwardly. The six white spots forming the row on posterior wings are submarginate, quadrate, and emarginate externally, and slightly so internally; a rather narrow white line above the anal angle; the basal half of the costal margin broadly pale reddish-brown, outer margins of both wings narrowly white between the veins.

UNDERSIDE. Basal half of both wings bright rufous, outer half dull brownish-grey. Anterior wings with two black spots near the subcostal nervure towards the base, beyond which are two bars nearly crossing the cell from the subcostal nervure, followed at the end and beyond the cell by a large black patch traversed by two irregular grey lines, one on each side of the discocellular nervules, a round black spot between the middle and lowest median nervules, and indications of other spots in the red area; the outer half is crossed by the row of white spots as on the upperside, but larger and more emarginate. Posterior wings with two or three spots at the base, and a double row of somewhat irregular black bars from near the base on the costal to the inner margin a little before the middle; the bars below the cell margined, as to the upper row internally, and as to the lower row externally, with light greyish-brown, two irregular rows of bars and spots across the disk, one before the other, beyond the middle, the latter being situated close to the inner edge of the row of white spots, which are sharply emarginate externally; outer margins of both wings white between the veins.

Hab. New Britain.

In the Collection of H. Grose Smith.

Nearest to *C. Obscura*, Guérin, but differs in colour as well as in the much greater size of the rows of white spots on both wings, and the shape of the wings is rounder.

II.—CETHOSIA THEBAVA. ♂. FIGS. 3. 4.

Cethosia Thebava, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 5, vol. 19, p. 296 (April, 1887).

Exp. 3 inches.

Male. "UPPERSIDE. Anterior wings with the apical portion, costa, and the upper part of the cell nearly to the base fuscous-brown, the remainder being rufous. The cell is crossed by four light rufous lines, forming two quadrangular spots; a series of white angular lines on the margin, between which and the cell is a row of five white spots, the three uppermost linear, the other two broader, with dusky-brown spots in the middle.

"Posterior wings rufous, broadly margined with fuscous-brown, and a series of white marginal angular lines corresponding with those on the anterior wings.

"UNDERSIDE. Anterior wings light brown, tinged towards the base with red; the cell, the basal portion of which is red, is crossed by three black spots, centred with and surrounded by dusky-white; the middle row of white spots is confluent, extends nearly to the inner angle, and is margined internally by a row of black markings. The marginal white angles on both wings are broadly defined and bordered on each side with black, with a white spot in the centre of each angle.

"Posterior wings light brown, red towards the base, with three dusky-white bands, irregularly defined; in the interior of each band are irregular indistinct rows of black spots." (H. G. S., *loc. cit.*)

Hab. Yendau, Burmah.

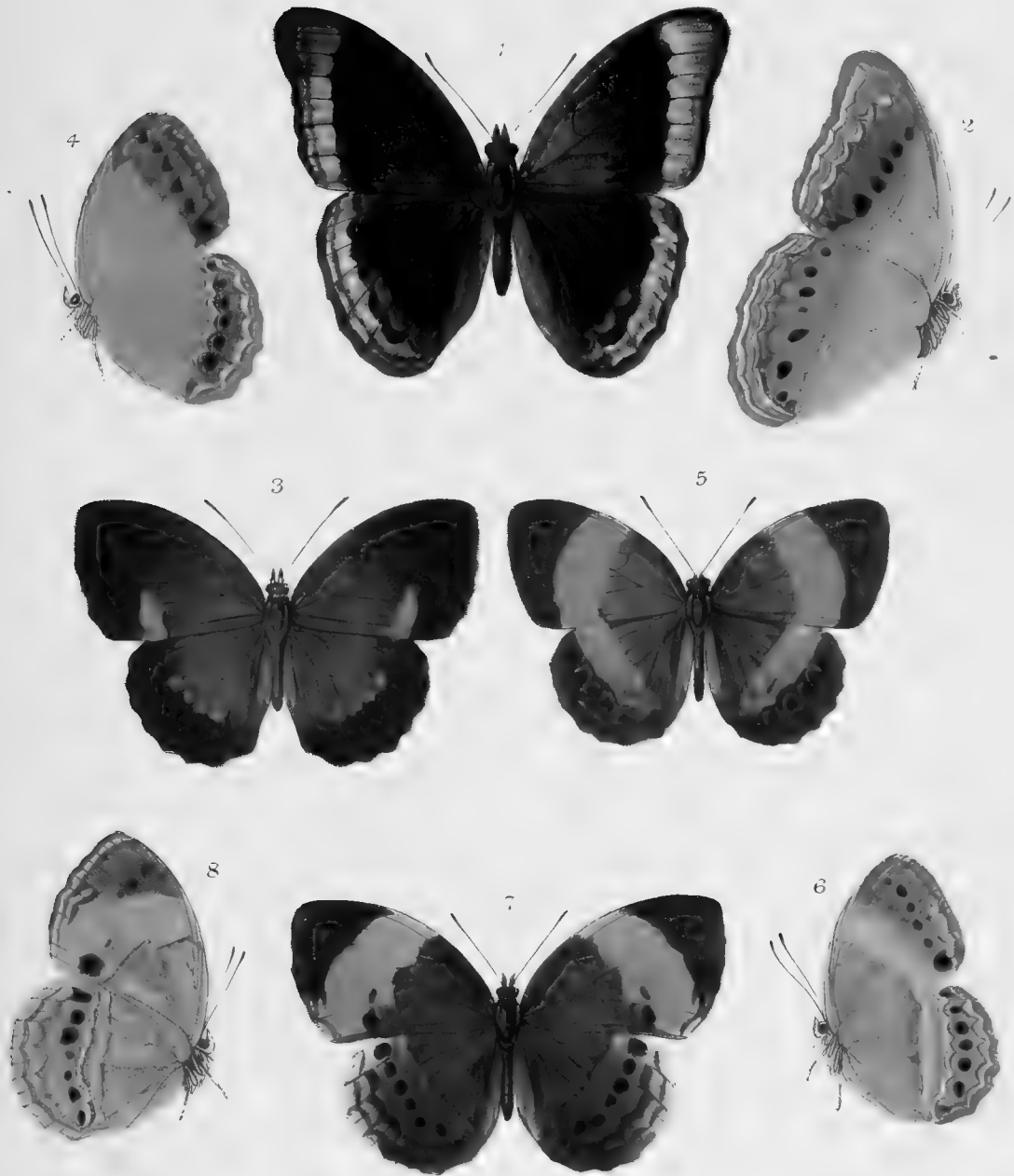
In the Collection of Henley Grose Smith.

Differs from all described species in the colouring of the undersurface of the wings; on the upper surface it perhaps most resembles *C. Nicobarensis*, Feld.

NYMPHALIDÆ.

NYMPHALINÆ.

CIRRHOCHROA. CUPHA.



Horace Knight del et lith

West Newman: imp

1,2 CIRRHOCHROA IMPERATRIX
3,4. CUPHA FUMOSA.

5,6 CUPHA CYCLOTAS.
7,8. " MÆNADA.

NYMPHALIDÆ.—NYMPHALINÆ.

CIRROCHROA.

CIRROCHROA IMPERATRIX. FIGS. 1, 2.

Cirrochroa Imperatrix, H. Grose-Smith, "Novitates Zoologicæ," Vol. I., p. 348, 1894.

Exp. $2\frac{1}{2}$ inches.

Male. UPPERSIDE. Both wings dark velvety steel-blue. Anterior wings, with the basal third steel-blue, somewhat iridescent; the middle third dark velvety blue, in some lights almost black; the outer third paler steel-blue than the basal third, and iridescent; costal margin, apex, and outer margin almost black. Posterior wings resemble the anterior wings, but the dark velvety area is not so wide, and encloses across the disc a row of indistinct iridescent steel-blue lunules, those between the median nervules the most apparent. The paler steel-blue marginal area is traversed by a somewhat narrow undulated dark band, and the outer margin is the same colour. The abdominal fold is somewhat rufous, a colour which slightly pervades the costal and basal portion of the wings.

UNDERSIDE. Similar in markings to *C. Regina*; the steel-blue band which crosses both wings is narrower, and its inner side is much more narrowly bordered by iridescent white. The area beyond the band is darker brown than the basal area, and only faintly tinged with violaceous, the corresponding area in *C. Regina* being much darker and more strongly pervaded by that colour.

Hab. Biak (Doherty).

Described from one example in the Collection of the Hon. Walter Rothschild.

CUPHA.

I.—CUPHA FUMOSA. FIGS. 3, 4.

Cupha Fumosa, H. Grose-Smith, "Annals and Magazine of Natural History," Series 6, Vol. XIX. (February, 1897).

Exp. 2 inches.

Male. UPPERSIDE. Both wings fuliginous dark brown, the cells and basal two-thirds of the wings paler fuliginous-brown; the anterior wings are crossed from the middle median nervule to the inner margin, at one-third from the outer margin, by three ill-defined bright brown spots placed under each other between the veins. Posterior wings crossed on the disc beyond the cell by a row of bright brown spots, outside which is a row of very indistinct dark brown spots bordered outwardly by indistinct fuscous lunules.

UNDERSIDE, with the basal three-fourths paler fuliginous-brown, without any transverse lines or markings; the outer fourth is darker purplish-brown, the inner side of which is crossed, from near the costal to near the inner margin, by a row of orange-brown spots, centred with black and nearly surrounded by pale violaceous-brown; a pale submarginal dark line crowned by pale violaceous-brown lunules.

Hab. Kiriwini, Trobriands (Meek).

In the Collections of the Hon. Walter Rothschild and H. Grose-Smith.

A long series of this distinct species was sent; the female scarcely differs from the male but the bright brown spots are rather longer.

II.—CUPHA CYCLOTAS. FIGS. 5, 6.

Messaras Cyclotas, H. Grose-Smith, "Novitates Zoologicae," Vol. I., p. 349, 1894.

Exp. 2 inches.

Male. Both wings very much as in *C. Turneri*, Butl., but paler brown.

UPPERSIDE. On the anterior wings the pale fulvous band across the disc is more curved on its inner side and less curved on its outer side. On the posterior wings, near the outer edge of the pale band, which is somewhat narrower and

more irregular on its inner edge than in *C. Turneri*, is an indistinct narrow fuscous band, interrupted by the veins, outside which is a row of indistinct fulvous lunules centred with dark brown spots, between which and the margin is a fuscous band centred with lunular bars of a lighter shade.

UNDERSIDE, paler than above, the pale bands on both wings being very clearly defined on the inner side by an irregular fulvous line, in a somewhat oblique direction from near the centre of the costa to the submedian nervure, and on the posterior wings from the costa to near the anal angle. The area between this line and the base on both wings is considerably darker than the pale band. The outer third of the wings beyond the pale band is crossed with a row of dark brown spots as in *C. Turneri*, surrounded with bright fulvous, on each side of which is an indistinct row of fuscous markings, a submarginal row of indistinct pale lunules with fuscous bars at their base. The outer third of both wings is scarcely tinged with violaceous. On the posterior wings the pale band is considerably restricted, the row of spots across the outer third is crowned with pale lunules which are less arcuate than in *C. Turneri*, and the pale lunules beyond the spots are rather more arcuate. The female resembles the male.

Hab. Biak and Korrido (Doherty).

In the Collections of the Hon. Walter Rothschild and H. Grose-Smith.

It is near *C. Turneri*, but smaller, and the rufous-brown basal area is much more extended on both wings, and its outer edge on the underside is more clearly defined.

III.—CUPHA MÆNADA.

Exp. $2\frac{3}{8}$ inches.

Male. UPPERSIDE. Both wings dusky brown. Anterior wings crossed from about the middle of the costa to the outer angle by a very broad oblique fulvous band, becoming paler towards the costa, the inner edge of the band is irregular, but less so than in *C. Erymanthis*, Drury, being but slightly invaded by the dark ground-colour below the uppermost median nervule; on either side of the lowest median nervule are two dark patches, the lower of which is bordered inwardly by another obscure, rather paler, patch. The fulvous band does not quite reach the inner margin, and at the anal angle is crossed by a submarginal brown line; the cell is crossed towards its end by an indistinct fulvous streak, and the apical third is darker than the basal third. Posterior wings with the disc crossed by a row of obscure dark brown spots, surrounded

by dark fulvous rings, inside which are two rows of irregular brown lines; the basal third is darker than the outer two-thirds; outside the discal row of spots are three or four irregular narrow bands, the outer-marginal area is pale tawny, which colour extends along the costal margin, becomes broadest towards the apex, and thence narrowing along the outer margin until merged in the dark ground-colour.

UNDERSIDE, much paler and brighter brown, with the spots and markings more clearly defined; towards the apex of the anterior wings are three black spots underneath each other, on the posterior wings the basal third is bordered by a narrow fulvous line which is straight, though slightly irregular, and in marked contrast to the deeply-indented and curved line which crosses the wings of *C. Erymanthis*.

Hab. Sula Island (Mangioli).

In the Collections of Dr. Staudinger and H. Grose-Smith. I received this insect from Dr. Staudinger under the above name, but I cannot find that he has described it. The wings are more elongate than in *C. Erymanthis*.



THE BUTTERFLIES
OF THE
GENUS



NYMPHALIDÆ.—NYMPHALINÆ.

TERINOS. I.

I.—TERINOS MADDELENA. ♂. FIGS. 1, 2.

Exp. $2\frac{3}{4}$ inches.

Male. UPPERSIDE. Anterior wings black, with a bright purplish-blue subcostal and subapical band. It commences at two-fifths of the length of the wing, and is broadest at the apex. Posterior wings black, the centre filled with a large purplish-blue blotch, which extends from between the branches of the subcostal nervure over the end of the cell, and the whole of the disk to the hind margin; towards the anal angle it is bordered with orange-tawny. The base, costa, apical half, and inner margin of the posterior wings are all broadly black.

UNDERSIDE reddish-brown, with grey transverse markings, which become bluish and more distinct on the hind wings, where there are no less than eight; the two basal ones short and less distinct than the others, except the submarginal line, increasingly zigzag; between the fifth and sixth lines is a row of brown spots.

Body black above; palpi and undersurface grey, tibiæ and tarsi tawny. Hind wings regularly dentated, but hardly angulated.

Hab. Matava.

In the Collection of Mr. H. Grose Smith. The black portion of the upper side of the wings are not coloured sufficiently dark in the figure.

II.—TERINOS TETHYS. ♀. FIGS. 3, 4.

Terinos Tethys, Hewitson, "Proceedings of the Zoological Society of London," 1862, p. 88, pl. 10, figs. 1, 2; H. Grose Smith, "Novitates Zoologicæ," I., p. 348 (1894).

Exp. $2\frac{3}{4}$ inches.

Female. UPPERSIDE. Anterior wings dark brown, with a broad submarginal band, buff, crossed by tawny nervures in the apical region, but becoming narrower, and shading into brown from above the middle of the hind margin to the hinder angle; there are also two patches of rich purplish-blue scaling above the subcostal nervure, one at the end of the cell, and the other at about three-fifths of the length of the wing, both slightly continued below the subcostal. Posterior wings dark brown, shading into reddish-brown between the cell and the inner margin, and into buff between the outer and anal angles; towards the apex they also incline to grey.

UNDERSIDE reddish-grey, with rather indistinct and irregular greenish-grey lines; incisions marked with white; anterior wings whitish before the apex, the blotch continued to the hinder angle by two broad pale stripes, the outermost with a slight purplish tinge; hind wings with a row of brown spots, not ocellated, between the third and fourth zigzag lines, counting from the margin; the two outer lines are marginal and submarginal, whiter than the others, and the marginal line expands into a broad stripe between the outer and anal angles.

Body dark brown above, buff beneath, tarsi reddish.

Hab. Humboldt Bay, New Guinea; taken Sept.-Oct., 1893 (Doherty).

In the Collections of the Hon. Walter Rothschild, Mr. H. Grose Smith, and others.

A fine series of both sexes of this beautiful insect was comprised in Mr. Doherty's Collection from Humboldt Bay.



IN THE JOURNAL OF THE

THALEROPIS.



5.6. THALEROPIS KINUGNANA. ♂

♀

NYMPHALIDÆ.—NYMPHALINÆ.

THALEROPIS. I.

I.—THALEROPIS CLEOCHARES. ♂. Figs. 1, 2.

Apatura Cleochares, Hewitson, "Entomologist's Monthly Magazine," vol. 10, p. 58 (August, 1873).

Exp. $1\frac{8}{10}$ inches.

"Male. UPPERSIDE. Dark brown. Anterior wings with the base red-brown, a spot in the cell bordered inwardly with black, a large spot below this, deeply indented on the basal side, and bordered with black; crossed at the middle by three spots, the first of which (near the costal margin) is trifold, all rufous-orange: two minute white spots near the apex.

"Posterior wings rufous, paler near the costal margin, protruded at the anal angle, the base rufous-brown, the outer margin dark brown; a submarginal series of four black spots, a single black spot above these near the abdominal margin.

"UNDERSIDE very pale, clouded with lilac-brown towards the outer margins; both wings with a submarginal black line, bordered above with paler colour. Anterior wings as above, except that there are two minute black spots in the cell, a large black spot filling the indentation described above; a second black spot between the median nervules beyond the middle.

"Posterior wings undulated with rufous-brown, with the costal margin curved outwardly near the base and apex and inwardly at the middle, and marked by small black linear spots; a small spot near the base, and a linear spot from the costal margin dark brown, a larger central spot of lilac and brown; the basal spot above the anal angle has a centre of pale blue." (Hewitson, *loc. cit.*)

Hab. Angola.

In the Hewitson Collection of the British Museum.

Mr. Hewitson's Collection contains two specimens of this rare species. He remarks, "This species would at first sight be taken for a *Vanessa*. The eyes are, however, smooth; and I have, I think, fixed its true position, near *A. Ionia*."

Vanessa Ionia, Eversm., which occurs at Amasia, in Asia Minor, was afterwards figured by Herrich-Schäffer under the name of *Apatura Ammonia*; and Staudinger, in the second edition of his Catalogue of European Lepidoptera, published in 1871, made it the type of a new genus, *Thaleropsis* (p. 17).

II.—THALEROPIS KILUSA. ♂. FIGS. 3, 4.

Thalcropis Kilusa, H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 7, p. 125 (January, 1891).

Exp. $1\frac{3}{4}$ inches.

"*Male*. UPPERSIDE. Anterior wings dark brown, with the base, a spot near the end of the cell, an oblique spot beyond the cell, another smaller below it and nearer the margin between the upper and middle median nervules, and a transverse space extending over the disk from the middle median nervule to the inner margin about its middle, interrupted in the middle below the cell, light brown.

"Posterior wings elongate to the anal angle, which is acuminate, light brown, with a broad dark brown irregular band on the costal margin extending nearly to the apex, paler in the middle on the margin; the apex, costal nervure, and subcostal nervules tipped with dark brown, and a submarginal row of five dark brown lines (the two uppermost macular) between the veins from the discoidal nervule to near the anal angle.

"UNDERSIDE. Anterior wings black at the base, gradually becoming paler to the outer margin, where they are pinkish-brown; the spots as above, but paler, the spots beyond the cell being pinkish-brown, and the light brown discal space being more restricted below the cell towards the base; an indistinct submarginal row of dark spots following the outer margin.

"Posterior wings pinkish-brown, darker from the base to the middle, the outer edge of this space being fairly well defined and angulated outwardly on the first and third median nervules.

"Nearest to *T. Cleocharis*, Hew. The shape of the anterior wings resembles *T. Ionia*, Eversm., but is more sharply scalloped on the outer margin of anterior wings, and the posterior wings are more elongate and acuminate at the anal angle than in either of the two last-named species." (H. G. S., *loc. cit.*)

The Figures on the Plate are not quite correct in this respect, the posterior wings being represented as too round and not sufficiently acuminate at the anal angle.

Hab. North-west Madagascar (Last).

In the Collection of Henley Grose Smith.

III.—THALEROPIS KINUGNANA. ♂. FIGS. 5, 6. ♀. FIG. 7.

Euryphene Kinugnana, H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 3, p. 133 (February, 1889).

Exp. $1\frac{6}{8}$ inches.

"*Male*. UPPERSIDE. Both wings brownish-black, crossed from the middle of anterior wings to near the anal angle by a broad band of buff-colour. Anterior wings with three oblong spots beyond the cell above the band, and of same colour, beyond which are four small buff spots, followed by a submarginal row of U-shaped whitish lines, more developed towards the apex, almost obsolete at the inner angle; three indistinct markings in the cell.

"Posterior wings with a similar submarginal row of U-shaped lines.

"UNDERSIDE. Both wings much paler and browner, the band across both wings white. Anterior wings with two black reniform spots edged with white and centred with brown, one across the middle, the other at the end of the cell; another spot black, edged with white, below the cell near the base, the other markings more strongly defined.

"Posterior wings with a small brown spot centred with white near the base of the cell, on each side of which is a white streak curving outwardly.

"*Female*. UPPERSIDE. Both wings ashy-grey, the band, lines, and spots white, and more distinct than in the male; the band on anterior wings almost bisected on the inner side, and on posterior wings broader.

"UNDERSIDE as in the male, but whiter." (H. G. S., *loc. cit.*)

Hab. Mombasa (Last).

In the Collection of Henley Grose Smith.



NYMPHALIDÆ.

NYMPHALINÆ.

DOLESCALLIA.



1. DoleSchallia RICKARDI
2. " " SINIS

Handw. m.
3. DOLESCALLIA SCIRON, ♂.
4. " " ♀.
5. " " ♂.
6. " " ♀.

NYMPHALIDÆ.—NYMPHALINÆ.

DOLESCHALLIA. I.

I.—DOLESCHALLIA RICKARDI. ♂. FIG. 1.

Doleschallia Rickardi, H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 5, p. 171 (1890).

Doleschallia Pfeili, Honrath, "Berliner Entomologische Zeitschrift," xxxvi. p. 438, pl. xv. f. 7 (1892).

Exp. $2\frac{7}{8}$ inches.

"*Male*. **UPPERSIDE.** Both wings dark brown, rather paler towards the base. Anterior wings crossed beyond the cell by an oblique band of three rather broad blue spots, irrorated with white, extending from the costa to the upper median nervule; across the disk is a large blue patch, divided by the median nervules, extending at the upper end into the end of the cell, and at the lower end as far as the submedian nervule, where it is narrower than at the top and slightly curves outwardly; a curved row of five subapical white spots.

"**UNDERSIDE.** Both wings dusky brown, paler towards the apex and outer margin of anterior wings [and towards the outer margin of posterior wings] and crossed by an irregular black line, which, on anterior wings, is narrowly margined externally from the costa to the upper median nervule by bluish white, thence internally to the middle of posterior wings by dusky white; outside the black line on both wings is a rather broad, ill-defined, darker brown band; on anterior wings three irregular bright brown lines cross the cell beyond the middle, the line nearest the base bordered externally and irregularly with bluish white; the five white subapical spots as above, beneath which are three nearly obsolete ocelli. Posterior wings beyond the middle with two conspicuous and several other nearly obsolete ocelli; a bluish-white spot on the cell on the median nervule edged externally with black, and a less conspicuous one below the costal nervule. A reddish shade on the inner side of the short tail at the anal angle." (H. G. S., *loc. cit.*)

Hab. New Ireland (Rev. R. H. Rickard).

In the Collections of Henley Grose Smith and Herr Honrath.

Allied to *D. Dascon* and *D. Dascylus*, Godm. and Salv.

Herr Honrath's figure represents a worn specimen from the same locality.

 II.—DOLESCHALLIA SINIS. ♀. FIGS. 2, 3.

Exp. 3 inches.

Female. UPPERSIDE brown, with more than the basal half of the wings tawny, brightest on the anterior wings, which have also a subapical curved row of five white spots. Incisions of all the wings white.

UNDERSIDE rich brown, more tawny towards the edges; anterior wings with two slaty-grey stripes in the cell, the first edged outside, and the second on both sides, with a brown line; beyond this are two more brown lines further apart. At two-thirds of the length of the costa commences a common dark line, W-shaped above, where it is edged outside with dusky white, and then running obliquely, straight, or only slightly undulated, to the inner margin of the posterior wings above the base of the tail. The four white spots as above, but partially surrounded with blackish; below there is a fifth white dot, and there is another white spot between the submedian nervure and the lowest median nervule. Opposite spots two to four are three black dots marked with white on a rather indistinct brown submarginal line. Posterior wings with a submarginal line on the tawny marginal space, on the inner side of which the wing is scaled with bluish white; edged again within, near the tail, by blackish. On the disk are two large eyes, the pupil black, surmounted by a patch of bluish-white scales, the iris tawny on the inside and light brown on the outside, and an outer dark brown ring. Nearer the base are some light brown streaks, the lowest of which ends in a triangle filled up with bluish white.

Hab. New Guinea: (*type*) Ceram.

In the Collections of Messrs. Godman and Salvin and H. Grose Smith.

III.—DOLESCHALLIA SCIRON. ♂. FIGS. 4, 5. ♀. FIG. 6.

Doleschallia Sciron, Godman and Salvin, "Annals and Magazine of Natural History," ser. 6, vol. 1, p. 98 (1888).

Exp. 3 to $3\frac{1}{2}$ inches.

Male. Anterior wings with the hind margin slightly emarginate.

UPPERSIDE. Anterior wings rufous brown at the base, followed by a curved tawny band, rounded towards the costa. Just beyond it, above the lowest submedian nervule, is a white dot; and below it a black spot on the edge of the tawny band. Apical half of the wing blackish brown, with two tawny spots

placed obliquely beyond the end of the cell, and four small subapical white spots. Posterior wings rufous brown, darker towards margins, with two obsolete black spots on the disk, representing the eyes of the underside, and a blackish submarginal band.

UNDERSIDE rufous brown, with a common blackish line, shaped as in *D. Sinis*, mostly edged with whitish, which expands into a wide macular band outside the W-shaped part. Anterior wings with two white bands in the cell, the innermost edged outside, and the outermost on both sides with black; below the cell and between them is another white streak; outside them is a dark grey streak bordered on both sides with black, and followed by whitish scaling; on the disk is a series of more or less distinct white spots and eyes, with white pupils, black iris, and whitish rings; there is also a submarginal brown line, partly bordered above and below with whitish; on the hind margin is a rich tawny band. Posterior wings greenish on the disk, and marked with two large eyes, with a black pupil surmounted by a white dot, a light brown iris, shading into rufous within, and an inner yellow and outer brown ring. A brown submarginal line, within which, and also along the lower part of the inner marginal region, the wing is dusted with whitish. Towards the base are two conspicuous triangular white spots, partly surrounded with black, and between them are two parallel brown lines.

Female. UPPERSIDE. Anterior wings scarcely emarginate, rufous towards the base, followed by a very broad tawny band, leaving only the apical third and the hind margin blackish. At the end of the cell is a curved brown band, and there is also a row of four small white subapical spots. Posterior wings as in the male, but rather lighter in colour, and much more rounded.

UNDERSIDE as in the male, but the white markings are more bluish, whereas in the male they are almost silvery white. On the anterior wings the transverse line is hardly W-shaped above, and the white spots on the disk only form indistinct eyes at the lower end of the series.

Hab. Guadalcanar, Solomon Islands.

In the Collections of Messrs. Godman and Salvin, H. Grose Smith, and others.

Allied to *D. Browni*, Godm. and Salv. Also inhabits Alu, Fauro, and Treasury Islands. (G. & S.)



INSECTA DECAPODA.

NYMPHALINÆ.

DOLESCHALLIA II.



Illustration by

Hanhart imp.

1. DOLESCHALLIA CURTI PALPI

5. DOLESCHALLIA NOORNA, ♂.

3. 4. " " ♀

6. " " ♀

NYMPHALIDÆ.—NYMPHALINÆ.

DOLESCHALLIA. II.

IV.—DOLESCHALLIA GURELCA. ♂. FIG. 1. ♀. FIGS. 2, 3.

Exp. 3 inches.

Male. UPPERSIDE deep tawny. Anterior wings with the costa narrowly black, and a short broad black bar across the upper part of the end of the cell; the apical third and hind margin black, broadly to the middle of the wing, then more narrowly to the hinder angle; the tawny colouring is lighter beyond the black bar, and extends slightly into the border opposite it. Above the upper submedian nervule is a small orange spot in the middle of the border, and between this and the costa is a row of four small white dots, curving outwards. Posterior wings tawny, with a comparatively narrow black border towards the costa, which afterwards divides into three lines, the outermost marginal, which meet again at the anal angle, which is black. Within these are two small black spots.

UNDERSIDE rich brown, with a common black line at about two-thirds of the length of the wings. Anterior wings with two irregular white dashes, the second longest, near the base of the cell, bordered, chiefly on the opposing sides, with reddish; and two reddish stripes across the cell beyond; below the cell is a smaller whitish spot. The black streak is zigzag, and bordered outside with purplish white, above the upper median nervule; below it is straight nearly to the submedian nervule, where it again curves outwards. There is also a curved row of submarginal white dots, the two uppermost largest, and slightly bordered with black; the two lowest enclosed in slight, pale rings; hinder angle pale. An indistinct brown submarginal line. Posterior wings with two bluish-white spots near the base, edged outside with black; there are also some indistinct reddish-brown lines. The black transverse line is nearly straight, and just beyond it is a reddish-brown shade. Between this and the hind margin are three bluish spots marked with black, and enclosed in black rings; the uppermost eye smallest and least distinct. A faint black submarginal line, within which, and along the inner margin, is a good deal of purplish-white dusting.

Female. UPPERSIDE tawny, darkest towards the base, and on the posterior wings. Anterior wings with an irregular black dash on the upper part of the end of the cell, and the apex and hind margin with a black border, broadest on the costa, projecting inwards at the middle of the inner margin, and a curved row of four white dots near the apex, which is rather more truncated than in the male. Posterior wings with a black marginal and two submarginal lines, the innermost faintest, within which are three black dots, two corresponding to the usual large eyes of the underside, and the third smaller, nearer the costa. Anal angle blackish, slightly clouded with grey.

UNDERSIDE light brown, with a slight pearly grey lustre, with a common brown band, which, on the anterior wings, is slightly zigzag at each end, and does not extend to the costa; on the posterior wings it is nearly straight and oblique. The hind margins shade into yellowish tawny, especially on the posterior wings. Anterior wings with four rufous lines in the cell, a whitish patch towards the apex, and eight whitish submarginal spots, the four first corresponding to those of the upperside. Posterior wings with two rufous curved lines towards the base, one in and one above the cell, and three eyes, the uppermost nearly obsolete, the pupils of which are black and pale blue, and the rings light brown; the space between hardly darker than the ground-colour, but with an ill-defined yellowish mark on the inner side.

Body greenish tawny above; palpi and middle of pectus white.

Hab. New Britain and New Ireland.

In the Collection of Mr. H. Grose Smith.

Allied to *D. Australis*, Feld., *Browni* and *Noorna*.

We believe that Messrs. Godman and Salvin have ascribed the male to their *D. Browni* from Duke of York Island; but a considerable series of both sexes in the Collection of Mr. Grose Smith, we think, warrants its separation as a distinct species. What we consider to be the true male of *D. Browni* is a larger insect, with a tawny bar across the black apex of the anterior wings, very much as in the male of *D. Bisaltide*, Cramer.

V. —DOLESCALLIA NOORNA. ♂. FIGS. 4, 5. ♀. FIG. 6.

Exp. nearly 3 inches.

Male. UPPERSIDE rich fulvous, with black borders, narrower than in *D. Gurelca*. Anterior wings with a black dash on the upper part of the end of the cell, and with a curved subapical row of four white spots, the two nearest the costa almost contiguous, and rather large. Posterior wings with the border con-

sisting of two black submarginal lines, with the space between clouded towards the costa, and a slender brown marginal line; anal lobe blackish; two small discal spots, that nearest the anal angle smallest.

UNDERSIDE with a common black line, incurved and indented towards the costa of the anterior wings. Anterior wings with a short broad irregular silvery white blotch in the cell with brown borders, followed by an angulated silvery white stripe extending from the costa across the cell; beyond this is a rather indistinct conical reddish blotch, likewise extending from the costa across the cell. There is a third white spot below the origin of the lowest median nervule. The black transverse line is bordered with bluish grey on both sides, except towards the costa, where it is bordered with white on the outside only. There is also a rather indistinct submarginal brown line, within which is a row of spots, the four uppermost white, corresponding to those of the upper side, the two next slate-colour, rather indistinct, each with a minute white dot in the middle, and the two lowest ocellated, with large blue pupils, and suffused bluish irides, hardly defined from the intermediate space. Just below the tip are two long bluish-white dashes between the nervures. Posterior wings with two white spots near the base, the upper one rhomboid, the lower one irregularly securiform, beyond them is a reddish figure like an 8 produced at both ends. The transverse line is bordered with bluish grey, and the space beyond inclines to yellowish. There are two well-marked eyes, with black and blue pupils, and black rings, edged within with yellowish. There is an indistinct submarginal brown line, the lower part of which is dusted with bluish white; and the anal lobe and inner margin are likewise slightly dusted with bluish white.

Female. UPPERSIDE light tawny, with ill-defined brown borders, hardly visible on the posterior wings. Anterior wings with four yellowish subapical spots replacing the white ones of the male, and with a brown stripe on the upper part of the end of the cell; posterior wings with the two usual brown discal spots.

UNDERSIDE pale yellowish tawny, with the outlines of the white markings of the male faintly indicated in brown; the other pale markings nearly obsolete; a common transverse brown line not bordered; posterior wings with the pupils of the usual two eyes black, marked with blue; rings brown.

Hab. Port Moresby (Goldie); New Guinea.

The male is in the Collections of Messrs. Godman and Salvin, and the female in that of Mr. Grose Smith.



THE BUTTERFLY
COLLECTOR'S
GUIDE



THE BUTTERFLY
COLLECTOR'S
GUIDE

NYMPHALIDÆ.—NYMPHALINÆ.

KALLIMA. I.

I.—KALLIMA SPIRIDION. ♂. FIGS. 1, 2.

Kallima Spiridiva, H. Grose Smith, Forbes' "Naturalist's Wanderings in the Eastern Archipelago," p. 274 (1885).

Exp. $3\frac{1}{8}$ inches.

Male. UPPERSIDE. Anterior wings almost rectangular at the apex, the upper part of the hind margin very slightly concave, and more distinctly convex towards the hinder angle. Basal region dark brown; followed by a moderately broad band of pale blue, running from before the middle of the costa to the hinder angle. The sides are nearly parallel, the edges are darker blue than the centre, and towards the hinder angle the band shades into violet. Near the inner side of the band, between the two lowest median nervules, is a small oval inconspicuous vitreous spot. Apical region much darker blackish brown, with a small subcostal vitreous spot near the apex. Posterior wings dark brown, slightly paler than the basal region of the anterior wings, and somewhat greyish towards the apex; an irregular submarginal almost obsolete black band, hardly visible except towards the costa. Anal angle with a short tail.

Both wings with a very slight purple gloss.

UNDERSIDE rich brown or olive-green. Anterior wings with two obsolete dark striæ running from the costa, across the cell, the first at two-thirds of the length of the cell, and the second at its extremity; a third dark line, edged within with white, runs from the middle of the costa (where it is least distinct), and is angulated to the inner margin between the two lower median nervules. Just outside this angle is a large spot flecked with grey, and with a few black particles, surrounded by a whiter rim, and containing a spindle-shaped white spot. The white ring is bordered within by a black line, which is continued upwards, and flecked with white within. It soon becomes obsolete, but its course may be followed for a short distance obliquely upwards by occasional white flecks, outside which is a

row of five black dots, the lowest surrounded by white flecks. At the third spot, these turn upwards towards the costa, and the uppermost is bordered within by a white patch corresponding to the subapical spot on the upper surface. There is also a row of small submarginal black dots between the nervures, some of them slightly marked with white on the outside; the lowest spot is followed by another nearer the base. Posterior wings with the first dark line of the anterior wings continued across the cell, and the third black line, edged with white within, very distinct, and nearly straight, and running obliquely from the costa to the end of the tail at the anal angle; on the tail it is flecked with white on the outside instead of on the inside. Between the apex and the lower part of the transverse line is a row of about five dots surrounded at some little distance by flecked white rings; the four uppermost are black; the lowest is white, and the space between this and the ring is filled up with slaty grey. Outside these is an obsolete irregular line marked at intervals with small black and white dots, and nearer the lower part of the hind margin are one or two more small black dots.

Body brown above, whitish beneath.

Hab. Sumatra (Forbes).

In the Collection of Henley Grose Smith.

Allied to *K. Albifasciata*, Moore, and *K. Paralekta*, Horsf.

II.—KALLIMA KNYVETII. ♂. FIGS. 3, 4.

Kallima Knyvetii, De Nicéville, "Butterflies of India, Burma, and Ceylon," vol. ii. p. 267 (1886).

Exp. 4 inches.

Male. **UPPERSIDE.** Anterior wings brown at the base and on the inner margin; and the apical half blackish brown. An oblique band between the costa and the neighbourhood of the hinder angle, light blue, shading into white on the outer and upper half, and hardly extending below the submedian nervure. On the band, between the two lowest median nervures, is a round hyaline spot edged with black. The wing is dusted with blue in the cell, and with bluish grey above, and there is a white subcostal spot before the apex, which is decidedly falcate, the hind margin being strongly convex on the lower two-thirds. The cell is closed by a black line, curving outwards at the ends, and there is a zigzag black line on the outer edge of the lower part of the

blue band. Posterior wings brown, paler on the costa and towards the upper part of the hind margin, with unusually long and nearly straight tails; a rather indistinct zigzag subapical line, running still more indistinctly into the tail.

UNDERSIDE varied with light brown and grey, and speckled with black. Anterior wings with three dusky bands, the innermost extending to the bifurcation of the median nervure of the posterior wings; the third is edged within with whitish, and just within the hyaline spot between the two lowest median nervules, becomes a black line edged with white on the inside, and reddish on the outside, turns down to the inner margin, and is continued to the base of the tail on the posterior wings. An indistinct, incomplete and irregular line runs from within the vitreous spot towards the apex. The subapical white spot is edged outside with black, and there are four black dots in a curved line, between the nervures, between this and the hyaline spot; there is also a very indistinct festooned submarginal line marked at intervals with small black dots. Posterior wings with the festooned submarginal black line rather more distinct, and edged with white on its lower portion, the black portion widened afterwards, and extending into the tail. The outer portion of the wing banded obliquely with light brown and grey; an indistinct brown eye with a white pupil and a white rim resting on the transverse line between the two lowest median nervules, and followed by a row of four black dots (the lowest largest) between the nervures, running towards the tip, enclosed by rudimentary whitish rings, most distinct on the inner side.

Body brown, mostly whitish below.

Hab. Bhutan (Knyvett).

In the Collections of Messrs. H. Grise Smith and L. de Nicéville.

Allied to *K. Horsfieldii*, Kollar.



PLATE OF NEW SPECIES.

HYPOLIMNAS. I.



1891. M. J. G. S. de la et July 1891.

Edinburgh, 1891.

1.2 HYPOLIMNAS BARTELOTTI

3.4 H. STALLERI

NYMPHALIDÆ.—NYMPHALINÆ.

HYPOLIMNAS. I.

I.—HYPOLIMNAS BARTTELOTI. ♂. FIGS. 1, 2.

Hypolimnas Bartteloti, Henley Grose Smith, "Proceedings of the Zoological Society of London," 1890, p. 468.

Exp. $3\frac{1}{4}$ inches.

Male. UPPERSIDE. Anterior wings dark brown, a sinuate rather narrow oblique white band in the cell at two-thirds of its length, an oval spot at the end of the cell, with a few white scales above it; a brownish-white patch on the disc about its middle, divided into three by the upper and middle median nervules, the middle part elongate-ovate, the upper part subovate, smaller, the lower part linear, almost obsolete. Beyond this is a row of five round spots, the uppermost and lowest the largest, but smaller than in *H. Dinarcha*, Hew., the three others minute; the cilia at the apex, and also minutely between the veins, white. Posterior wings paler brown, the nervures and rays between dark brown; a stramineous patch interrupted by the dark nervures and rays occupies the cell and the space above it, as far as the subcostal nervure and slightly below the cell; on the margin two minute white spots between each of the veins from the subcostal nervure down to the upper median nervule; the cilia between these veins also spotted with white.

UNDERSIDE. Anterior wings paler than above towards the apex, and blacker towards the base, and the spots larger; above the white spot at the end of the cell are two indistinct white streaks, and between the spot across the cell and the base are four other white spots; a series of small white submarginal spots between the veins, commencing above the upper median nervule, and running down to the posterior angle. Posterior wings as above, the central patch being whiter and more extended, a submarginal row of minute white spots as above, but four instead of two between each of the veins; the cilia also spotted as above.

Hab. Forest of Central Africa (Bonny).

In the Collection of Henley Grose Smith.

Allied to *H. Dinarcha*, Hewitson, but the wings are browner and broader, and the row of spots beyond the middle differ in size from those in that species.

II.—HYPOLIMNAS STANLEYI. ♂. FIGS. 3, 4.

Hypolimnas Stanleyi, Henley Grose Smith, "Proceedings of the Zoological Society of London," 1890, p. 467.

Exp. 4 inches.

Male. UPPERSIDE. Anterior wings black, with a large, very oblique, elongate central spot white, faintly tinged with pink; the upper part is bifid, and extends into the cell (where there is a minute spot above it) and above the median nervure; the lower part occupies the area between the median nervures, except a small space in the angle formed by the junction of the lowest median nervule, and extends outwardly to nearly four-fifths of the length of the wing, being irregularly defined on its upper and outer edge; it also extends slightly below the lowest median nervule, where it is represented by some irregularly-marked white scales. There is a subapical white patch divided into two by the lowest subcostal nervule, the upper part being the smallest.

Posterior wings dark brown, with a white centre, which is shaded externally with pinkish-blue, and traversed across the disc as far as the cell by the black nervures and rays between; a row of very minute bluish-white spots between the veins near the margin.

UNDERSIDE. Anterior wings black at the base, shading into brown towards the apex; the patch and apical spot as above, but larger, especially that part of the patch which lies within the cell, where it extends upwards till it joins the small white spot; nearer the base is another small elongate white spot, and there are several more small white spots at the base; on the margin, from above the upper median nervule to the posterior angle is a row of small white spots, in pairs, alternately longer and shorter.

Posterior wings with the base and the space between the costal margin and the subcostal nervure broadly bright brown, the veins and a ray between them dark brown; the central area (as well as the abdominal fold) is white, shading into dull brown towards the outer margin and anal angle, and traversed by the dark brown veins, with rays of the same colour between; a series of minute spots on the margin.

Head marked with a few white spots; antennæ black; throat and abdomen black above, brown beneath.

Hab. Great Forest of Central Africa (Bonny).

In the Collection of Henley Grose Smith.

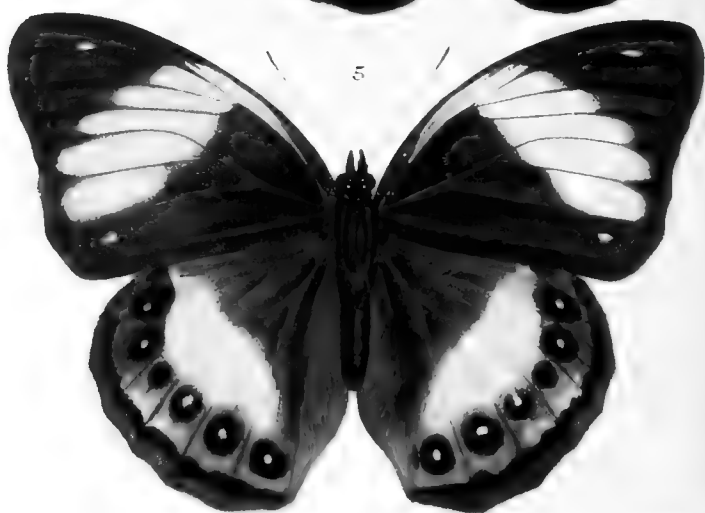
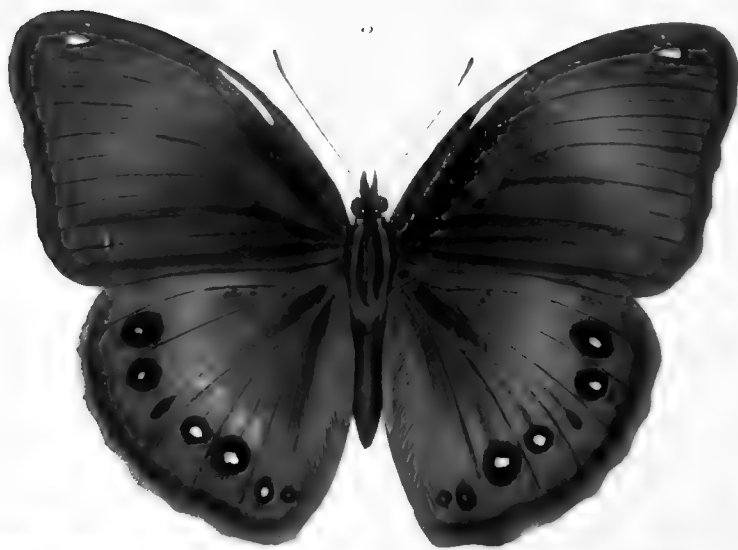
Very unlike any other species of the group.



IN NIMPHALIDAE.

SYMPLEGINÆ

HYPOLIMNINÆ II



From the collection of the

British Museum, London

THE LONDON MUSEUM OF NATURAL HISTORY, 1871. BY THE LONDON MUSEUM OF NATURAL HISTORY, 1871.

THE LONDON MUSEUM OF NATURAL HISTORY, 1871. BY THE LONDON MUSEUM OF NATURAL HISTORY, 1871.

NYMPHALIDÆ.—NYMPHALINÆ.

HYPOLIMNAS. II.

III.—HYPOLIMNAS PALEUTES. ♂. FIG. 1. ♀. FIGS. 2, 3.

Hypolimnas Paleutes, H. Grose-Smith, "Annals and Magazine of Natural History," Ser. 6, Vol. XIX., p. 176, February, 1897.

Exp. ♂ $3\frac{1}{4}$ inches; ♀ $3\frac{3}{4}$ inches.

Male. UPPERSIDE resembles *H. Deois*, Hew., but on the posterior wings the pale discal patch is more widely suffused by violaceous, and the outer edge of the patch is less acutely angulated in the middle; there is only a faint indication of the orange-tawny patch at the anal angle, and there is a distinct submarginal row of spots centred, except the fourth, with violet.

UNDERSIDE darker than in *H. Deois*; the anterior wings are almost without the pale space in the middle of the costal margin, and, instead of two indistinct pale lines parallel with the outer margin, there is only an indication of one line close to the margin. The posterior wings are dusky brown, except a narrow pale space (narrower and less extended than in *H. Deois*) inside the discal row of spots, which are six in number, centred with violaceous, more conspicuously than in *H. Deois*, in which the black spots are centred with white dots; the two spots nearest the anal angle are partly surrounded by dusky tawny; only the spot above the upper median nervule is obsolete, and the row of pale lines near the outer margin of *H. Deois* is absent.

Female. UPPERSIDE dusky brown; a very indistinct, almost invisible, oblique paler band crosses the wings beyond the cell; a white streak at the middle of the costa and a submarginal row of white dots across the disk between the veins, except on either side of the upper median nervule. On the posterior wings is a curved row of black spots across the disk, centred with white, of which the second and sixth are the largest and the fourth the smallest; inside the row of spots, between it and the cell, is a slight irroration of white scales.

UNDERSIDE as above, but paler. On the posterior wings the discal row of spots, in which the central spots are much larger, is bordered on either side by a paler dusky space, and the dark outer marginal band is divided by a pale brown sinuate line, crossed by the dark veins.

Hab. Kiriwini, Trobriands (Meek).

In the Collections of Mr. Grose-Smith and others.

IV.—HYPOLIMNAS PALLADIUS. ♂. FIG. 4. ♀. FIGS. 5, 6.

Hypolimnas Palladius, H. Grose-Smith, "Annals and Magazine of Natural History," Ser. 6, Vol. XIX., p. 175, February, 1897.

Exp. ♂ $3\frac{3}{8}$ inches; ♀ $3\frac{5}{8}$ inches.

Male. UPPERSIDE. Both wings dark velvety brown, anterior wings crossed halfway between the cell and the apex by a broad oblique band of five white spots, divided by the black veins, and situate between the subcostal and the lowest median nervules. Posterior wings with an obscure orange-rufous patch near the anal angle, in which is placed a black spot centred with violet; a submarginal row of other black spots is faintly visible, centred with minute violet spots.

UNDERSIDE. Anterior wings crossed by the white band, wider than on the upperside, and extending between the median nervules nearly to the outer margin; between the lowest median nervule and the submedian nervule is an obscure dark spot, centred with violet. Posterior wings like those of *H. Pandarus*, Linn., but the submarginal row of whitish lines is almost obsolete, and the inner edge of the discal tawny band is bordered by an almost white irregular band, widest in the middle, and the middle black spot in the tawny band is small and not centred with white.

Female. UPPERSIDE paler brown, with the white band on the anterior wings broader than in the male and extending over the subcostal nervules towards the base; a small white spot towards the apex, and a similar spot below the lowest median nervule. Posterior wings with the disk crossed by a broad irregular band of white, narrowing and becoming obsolete towards the costal margin; below this band is a row of black spots centred with white, except the third and fourth spots, the two spots nearest the anal angle partly surrounded by dusky tawny, and the next two bordered outwardly by a whitish space irrorated with black scales; outer margin broadly dark brown, the inner edge of which is sinuate.

UNDERSIDE paler than above; towards the apex of the anterior wings are three white dots, the spot above the submedian nervule is centred with white, and there is an obscure dusky white patch in the upper part of the cell towards its end. On the posterior wings the discal row of spots is smaller than in *H. Pandarus*.

Hab. Fergusson Island (Meek).

Nearest to *H. Pandarus* and *H. Saundersi*, Wall.

In the Collections of Mr. Grose-Smith and others.



ARTIFICIAL FLIES.

THE LONDON

THE LONDON



THE LONDON

THE LONDON

2. THE LONDON

3

4.5

5

NYMPHALIDÆ.—NYMPHALINÆ.

HYPOLIMNAS. III.

V.—HYPOLIMNAS PALLAS. FIGS. 1, 2.

Hypolimnas Pallas, H. Grose-Smith, "Annals and Magazine of Natural History," Series 6, Vol. XIX., p. 406 (April, 1897).

Exp. $3\frac{1}{2}$ inches.

Male. UPPERSIDE. Both wings brown. Anterior wings crossed obliquely half-way between the end of the cell and the apex by an obscure ferruginous band, commencing on the costa and becoming obsolete between the two upper median nervules some distance before reaching the outer margin; a subapical oval white spot, followed by an elongate ferruginous streak extending nearly to the oblique ferruginous band. Posterior wings with a broad fulvous submarginal band across the disc, in which between the veins is a row of black spots, some of which are centred by a minute white spot.

UNDERSIDE. Paler brown. Anterior wings with three spots, edged with black, in the cell at its upperside, and an irregular brownish-white streak a little beyond the end of the cell, followed by an irregular triangular broad band of brownish-white, placed obliquely, the base of the triangle resting on the costa and its apex, which is elongated outwardly, terminating on the upper median nervule; a pale brownish-white patch a little before the apex; a row of seven black spots centred with white crosses the disc beyond its middle, outside which are two submarginal sinuate pale brown lines. Posterior wings closely resemble those of *H. Formosa*, Her.-Schäff., but the pale band, which crosses the disc of that species in which the spots are situate, is more obscure.

Hab. New Hebrides.

In Mr. H. Grose-Smith's Collection.

Nearest to *H. Formosa*, but a much larger insect, and the wings are more elongate.

VI.—HYPOLIMNAS DELUDENS. ♂. FIG. 3. ♀. FIGS. 4, 5.

Hypolimnas Deludens, H. Grose-Smith, "Annals and Magazine of Natural History," Series 6, Vol. VII., p. 125 (January, 1891).

Exp. ♂ $2\frac{3}{4}$; ♀ 3 inches.

Male. UPPERSIDE. Resembles *H. Deceptor*, Trimen, from Delagoa Bay and Mombasa, but differs from it in having on the upperside of both wings a row of seven spots inside the partly obsolete submarginal row of spots of *Deceptor*. In this row, on the anterior wings, the first and seventh are the largest; on the posterior wings they are all nearly the same size.

UNDERSIDE. On both wings the submarginal rows of spots are very distinct. On the posterior wings the shoulder is entirely white, and the band below it is much darker, broader, and, above the subcostal nervure, uninterrupted, *Deceptor* having above that nervure a subovate whitish-brown space. The outer marginal band of *Deludens* is also much wider and darker, except near the apex and on either side of the upper median nervule, where there are paler spaces.

Female. Resembles *H. Deceptor* ♀, but the anterior wings are shorter; on the upperside of both wings the additional row of spots is very distinct, and on the posterior wings the large central white space does not extend, towards the costal margin, above the first subcostal nervule.

Hab. S.W. Madagascar (Last).

In Mr. H. Grose-Smith's Collection.



EUXANTHE.



NYMPHALIDÆ.—NYMPHALINÆ.

EUXANTHE. I.

I.—EUXANTHE WAKEFIELDII. ♀. FIG. 1.

Godartia Wakefieldii, Ward, "Entomologist's Monthly Magazine," vol. 10, p. 152 (1873); Oberthür, "Études d'Entomologie," part 3, p. 28, pl. 2, f. 5 (1878); male only.

Exp. nearly 4 inches.

Female. UPPERSIDE velvety-black, with white markings, those on the anterior wings faintly tinged with greenish-blue. Anterior wings with the hind margin curved inwards below the middle, slightly indented between the branches of the median nervure, and then regularly curved to the hinder angle; posterior wings regularly rounded and scalloped to the anal angle. Anterior wings with a pale spot near the base, below the subcostal nervure, a large oval spot nearly filling the outer half of the cell, but not reaching quite to its extremity, or to the subcostal nervure; beyond the cell runs a row of seven long spots from below the subcostal nervure nearly to the inner margin, the second the smallest, the fifth and sixth the largest, the sixth being deeply indented at both extremities; across the apical third of the wing runs another series of six pale spots, the first small, below the costa, the next three large, but diminishing, and the last two small, between the branches of the median nervure; below the tip are two indistinct white dots. Fringes slightly marked with white between the nervures. Posterior wings with the whole centre from the inner margin to nearly two-thirds of their length white; costa black, with a white spot at half its length; hind margin black, with a row of eight moderate-sized white spots curving from the costa to the anal angle; another row of about fourteen or fifteen smaller spots in a somewhat waved series; and an outer row of seven still smaller spots opposite the incisions on the hind margin.

UNDERSIDE nearly as above, but with the smaller white markings more distinct. Anterior wings tinged with coffee-brown towards the costa and tip; two additional small white dashes near the hinder angle. Posterior wings with the costa and hind margin coffee-brown instead of black, and with several white

spots near the base, above the subcostal nervure and towards the hinder angle, which are not visible above.

Head and thorax black, with numerous small white dots; abdomen tawny-yellow, black at the base, and with a dark stripe on the back.

Hab. East Africa.

In the Collections of Messrs. Charles Oberthür (type from Ribé) and Henley Grose Smith.

II.—EUXANTHE TIBERIUS. ♂. FIGS. 2, 3. ♀. FIG. 4.

Euxanthé Tiberius, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 3, p. 129 (February, 1889). ♀. only.

Exp. $3\frac{3}{4}$ to 4 inches.

Male. UPPERSIDE brownish-black, with a slight purple iridescence on the posterior wings; incisions very slightly marked with white. Anterior wings with a large dull red patch, filling up the cell, except towards its extremity, and extending more or less above and below it. There are two oblique rows of pale green spots, the first consisting of five spots, the first inside the upper part of the discoidal cell, the second outside the lower half, and the rest running towards the hinder angle, the last emarginate within, and standing above the submedian nervure at about three-fourths of its length. The outer row consists of four green spots, extending from below the costa to just above the median nervure; there is also a curving row of nine moderate-sized submarginal white spots, placed between the nervures. Posterior wings with a submarginal row of twelve smaller white spots, placed, mostly in fours, between the nervures; towards the apex, three more spots, the middle one largest, from the commencement of an inner row.

UNDERSIDE with similar markings, but with the ground-colour brown, shading into coffee-colour or reddish, especially towards the costa and apex of the anterior wings, and on the hind wings; towards the base are several white spots, not visible above; about two on the anterior wings, and four on the posterior wings; only one spot in the inner submarginal row on the posterior wings.

Body black, thorax bordered with white above; head, thorax, legs and palpi spotted with white.

Female. UPPERSIDE with the ground-colour blacker than in the male. Anterior wings marked as in the male, but the inner band formed of larger spots and of a pale greenish-white, the outer spots white. Inner margin with a pale

dash in the middle in the specimen figured, but not in the type. Posterior wings with the centre filled up with a large pale greenish-white blotch, extending to the inner margin; a submarginal row of rather larger white spots than in the male, and one or two additional dashes towards the anal angle, nearer the hind margin; the inner row of white spots is better developed, consisting of four moderate-sized spots running from the costa in the type, and continued towards the anal angle in the specimen figured by four more; the last but two of this series of eight being nearly obsolete.

UNDERSIDE similar, but the greater portion, especially of the posterior wings, inclining to coffee-brown, the base is spotted with white, and on the posterior wings the outer portion of the black veins is much thickened, and a thick black line extends between them more or less towards the base, either from the blackish border on which the submarginal spots rest, or from the spots of the inner row.

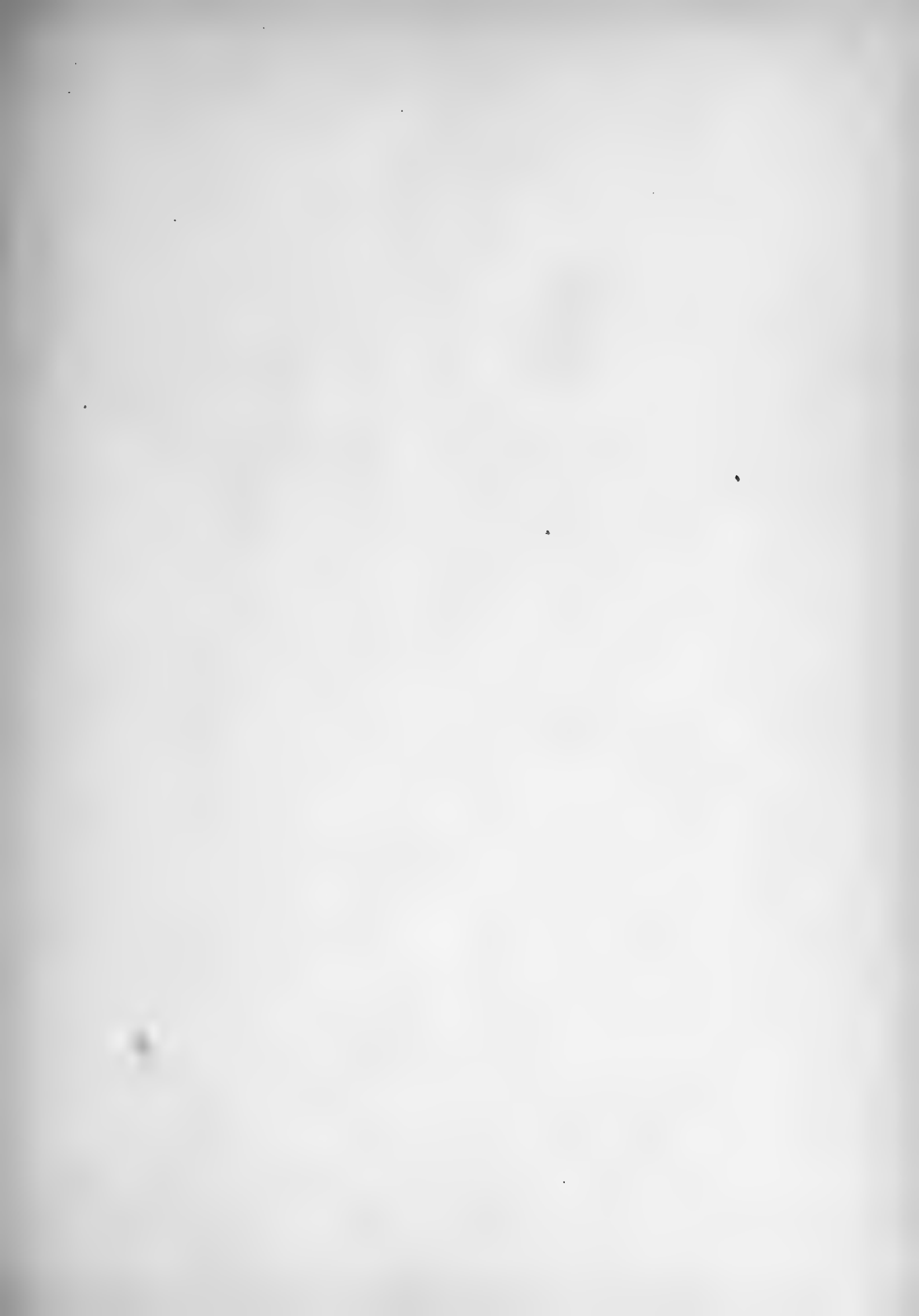
Body black, spotted with white as in the male. Wings broad, much less scalloped than in *E. Wakefieldii*.

Hab. Mombasa (Last).

In the Collection of Henley Grose Smith.

Allied to *E. Trajanus*, Ward,* but differs from it in the position, shape and colour of the spots in and about the cell, and in the middle row of spots on the anterior wings.

* *Godartia Trajanus*, Ward, "Entomologist's Monthly Magazine," vol. 8, p. 36 (1871); "African Lepidoptera," p. 10, pl. 8, figs. 3, 4 (1874).



III.—HESTINA OBERTHÜRI. FIGS. 5, 6.

Hestina Oberthuri, Leech, "Entomologist," vol. 23, p. 32 (February, 1890).

Exp. $2\frac{1}{2}$ —3 inches.

Dull black, with greyish-white longitudinal stripes in the cells, and on the disk of all the wings, but leaving a broad dark hind margin beyond; a row of small submarginal spots on the anterior wings, and a double row on the posterior wings, and towards the costa of the anterior wings.

UNDERSIDE with the pale markings clearer, and distinctly tinged with green, especially on the posterior wings; a double row of larger submarginal spots on all the wings between the nervures; the outer ones are oblong, and each intersected by a black pseudo-nervure; the inner ones are rounded on the posterior wings, and are irregular in shape on the anterior. Within these is a streak near the costa of the anterior wings, and a dot (placed out of the series) and two spots below it; and on the posterior wings there is an inner row of pale dots between the two submarginal rows and the longitudinal streaks. Body black, head spotted, and palpi and legs streaked with white; sides of pectus also broadly white; proboscis black.

Hab. Wychang, Ichang, Chang Yang.

In the Collections of Messrs. J. H. Leech and Henley Grose Smith.

"Taken in June at Chang Yang, and in September at Ichang.

"In some specimens the pale ground-colour is much suffused with ferruginous." (Leech, *loc. cit.*)

II.—HESTINA YANKOWSKYI. ♂. FIGS. 3, 4.

Exp. ♂ . $2\frac{3}{4}$ inches, ♀ . 3 inches.

Male. UPPERSIDE. Brownish-grey, with very pale greenish-white longitudinal markings; anterior wings with a bar across the cell, interrupted before reaching the median nervure; and a stripe above the submedian nervure, bifid beyond the middle; beyond the cell is a series of five stripes, the two lowest interrupted, the upper one in the middle, the other nearer the extremity. Hind margin with a submarginal row of seven small pale spots, between the nervures, but not extending above the subcostal nervules; within the three uppermost is an inner row of three larger spots.

Posterior wings similar, but with longer stripes, none of which are interrupted, between the nervures, and with a double row of submarginal spots.

UNDERSIDE more distinctly greenish-white than above, especially on the posterior wings, which are without markings and sparsely irrorated with grey; all the nervures narrowly black; anterior wings with the median nervure and its branches, the discocellular, and the submedian nervures broadly black; two connected black spots crossing the cell near its extremity, and some obsolete blackish spots between the nervures on the disk, the most distinct being between the two lower median nervules on the costal margin of the posterior wings; the space between the precostal nervure and the base is pale ochreous, with which colour the abdominal area towards the base is also faintly tinged. Body as in *H. Nigrireana*, but with smaller white spots and stripes on the head, pectus and legs; proboscis orange; face greyish-white.

The female resembles the male, but is paler grey on the upperside, and on the underside there are hardly any dark markings on the anterior wings.

Hab. Wychang.

In the Collection of Henley Grose Smith.

Nearest to *H. Subviridis*, Leech, but differs in being larger, and on the upperside both wings are lighter and the spots less defined. On the underside there are fewer dark markings than in *H. Subviridis*, especially on the posterior wings, the general aspect of which is an uniform sordid greenish-white, with the pale markings on the upperside very faintly distinguishable. In *H. Subviridis* there is no basal ochreous space on the posterior wings. In the aspect of the underside this species approaches more closely to *H. Viridis*, Leech; but it is a smaller insect, and on the upperside it is quite distinct from *H. Viridis*.

I am indebted to Mr. Cooke of Museum Street for the possession of this and the other Butterflies figured in this Plate; through him I have been enabled to acquire a fine series of Central and Western Chinese Butterflies (comprising many of the new species captured by Mr. Pratt on his recent expedition) which were collected by Captain Yankowsky, whose death I have to record with great regret.—H. G. S.

NYMPHALIDÆ.—NYMPHALINÆ.

HESTINA. I.

I.—HESTINA NIGRIVENA. Figs. 1, 2.

Hestina Nigrivena, Leech, "Entomologist," vol. 23, p. 31 (February, 1890).

Exp. 3-3½ inches.

UPPERSIDE black, with broad greenish-white longitudinal streaks, not extending to the hind margin, in and beyond the cell, and between all the nervures; that between the lowest median nervule and the submedian nervure bifid, only connected at the base.

Anterior wings with two rows of greenish-white submarginal spots placed beyond the rays, and, towards the costa, with the commencement of a third.

Posterior wings black, clothed with thick white hair at the base; beyond, the greenish-white stripes are more extended, and there is only one row of submarginal greenish-white spots or lunules, that nearest the costa double, the outermost of the two spots smallest. Within the black border, and between the nervures, from the open discoidal cell to above the submedian nervure, stand four round white spots at the extremity of the greenish-white rays. These are more or less scaled with pink on each side; the middle ones are papillated with black, and that nearest the anal angle is double.

UNDERSIDE similar, but the greenish-white streaks extend to the hind margins, only being interrupted by a zigzag submarginal blackish streak; there is a black spot near the extremity of the streak in the cell of the anterior wings; and the two streaks beyond the cell are interrupted by a black streak at one-third of their length.

Body black, head and pectus spotted with white, legs streaked with white, proboscis orange, thorax with a pale green central line, and the lateral and hinder borders edged with the same colour; abdomen greenish-white, a broad black stripe on the back, and on the lower part of each side.

Hab Chang Yang and Wychang.

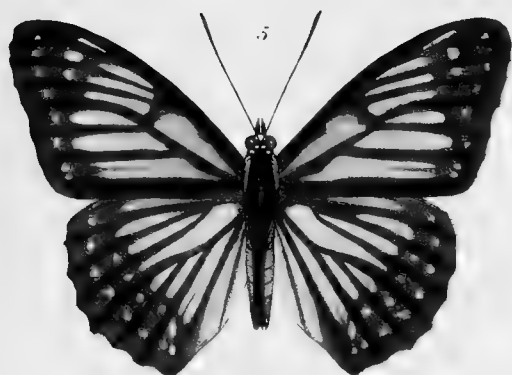
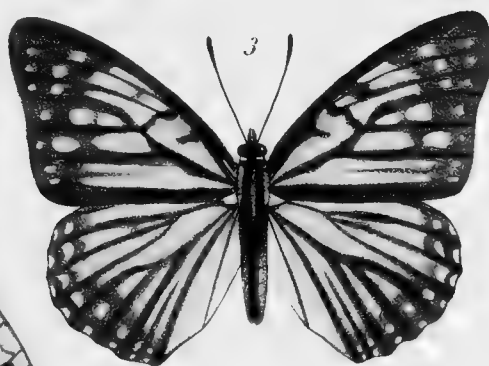
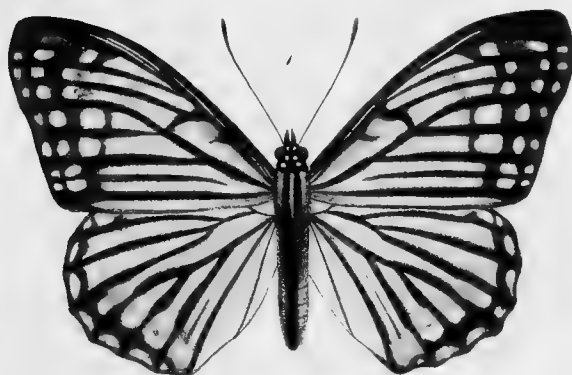
In the Collections of Messrs. J. H. Leech, and Henley Grose Smith.

Mr. Leech's specimens were taken at Chang Yang in May and June.

Allied to *H. Assimilis*, Linn., and *H. Mena*, Moore.

HYALINAE.

HESTINA.





NYMPHALIDAE
 Cymothoe



From Marshall's collection

Handwritten map

1. Cymothoe HERMINIA
 2, 4. " HAIMODIA
 5. " CROWLEYI

Cymothoe PRUSSI
 7, 8. "

NYMPHALIDÆ.—NYMPHALINÆ.

CYMOTHOE. I.

I.—CYMOTHOE HERMINIA. ♂. FIGS. 1, 2.

Harma Herminia, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 5, vol. 19, p. 63 (January, 1889).

Exp. $2\frac{3}{4}$ inches.

"*Male*. UPPERSIDE. Both wings light tawny-brown, brighter towards the exterior margins, crossed beyond the middle by a broad dark brown band; on the anterior wings the band tapers towards the apex, and is broader towards the inner margin, sinuated slightly internally, and deeply so externally; on the posterior wings the band is broader on the costal margin and tapers towards the anal angle; between the band and margin, on both wings, is an irregular row of brown hastate markings; the base of the anterior and the base and fold of the posterior wings broadly brown, the exterior margins of both wings more narrowly brown.

"UNDERSIDE. Both wings light tawny-brown, the band less distinct, bordered internally by a brown line extending from the costa of the anterior wing to the anal angle, inside which are the usual markings, the spots in the middle and at the end of the cell on the anterior wing brown, both wings with a submarginal band of indistinct hastate spots." (H. G. S., *loc. cit.*)

Hab. Mongo-ma-Lobah (G. Thomson).

Allied to *C. Canis*, Dru., and *C. Capella*, Ward.

In the Collection of Henley Grose Smith, who has also just received this species from Mr. W. Bonny, who accompanied Mr. Stanley in his journey across Africa, where it was captured in the vast Forest in the middle of that Continent.

II.—CYMOTHOE HAIMODIA. ♀. FIGS. 3, 4.

Harma Haimodia, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 5, vol. 19, p. 64 (January, 1889).

Exp. $2\frac{1}{3}$ inches.

“*Female*. **UPPERSIDE.** Both wings light rufous from the base to beyond the middle. Anterior wings, with the apical portion from the centre of the costa to the inner angle brown-black, crossed by an oblique band of six white spots, the third being small, the fourth the largest, elongated, with a small black spot in the middle, the fifth spot interrupted, and the sixth near the inner angle nearly obsolete; two white spots near the apex. Posterior wings from beyond the middle brown-black, with a submarginal irregular band of white spots, those towards the apex indistinct and smaller than the three nearest the inner angle.

“**UNDERSIDE.** Rufous-orange, darker towards the apex. Anterior wings with two indistinct reddish lines in the cell, the band of spots and two apical spots as on the upperside, and apex white; a submarginal row of dull brown hastate markings. Posterior wings with the submarginal row of white spots bordered inwardly with dull brown, inside which is an indistinct row of hastate white markings, an indistinct white spot near the centre of the costa, a submarginal row of brown linear markings edged outwardly with white.

“Margins of both wings crenulated. Thorax and abdomen rufous above and white below; inner margin of posterior wings beneath narrowly whitish.” (H. G. S., *loc. cit.*)

Hab. Cameroons.

In the Collection of Henley Grose Smith.

III.—CYMOTHOE CROWLEYI. ♀. FIG. 5.

Euphædra (?) Crowleyi, W. F. Kirby, “Annals and Magazine of Natural History,” ser. 6, vol. 3, p. 247 (1889).

Exp. 2 inches.

Female. “**UPPERSIDE.** Orange-tawny, the costa and apical half of the anterior wings, and the hind margins of all the wings, black; a row of five white spots (the third and fourth transverse) across the black apex of the anterior wings; the incisions white, and the border marked with a white loop at the anal angle of the anterior wings, and with four at least on the posterior wings.

“**UNDERSIDE.** Coloured as above, but rather paler, and with more distinct white loops on the posterior wings.

“Body black, spotted with white, and with a white stripe at the base of the abdomen above.” (W. F. K., *loc. cit.*)

Hab. Agove.

In the Collection of Mr. Crowley.

Several African butterflies and moths are coloured like this insect, though it has no very close ally.

IV.—CYMOTHOE PREUSSI. ♂. FIG. 6. ♀. FIGS. 7, 8.

Cymothoe Preussi, O. Staudinger, “Stettiner Entomologische Zeitung,” vol. 50, p. 412 (1889).

Exp. $2\frac{1}{4}$ to $2\frac{1}{2}$ inches.

Male. UPPERSIDE. Tawny, hind margins dentated, and edged with a rather thick black line; anterior wings with the costa edged with a black line, and with a row of eight submarginal black spots between the nervures; the row is continued on the posterior wings, but after the first two spots it becomes a continuous festooned submarginal line; posterior wings rather pointed at anal angle.

UNDERSIDE reddish-grey, with black lines in the cells forming two irregular patterns in each, the inner closed, the outer open towards the costa; under the inner one is a black ring on the anterior wings. Across the middle of both wings are slight traces of a pale band, edged on both sides on the anterior wings, and on the inside on the posterior wings with rather indistinct and more or less continuous brown dashes. Marginal markings as above, but with a whitish spot at the apex of the anterior wings, another within the fourth spot, and faint indications of other pale spots within the spots and festooned line.

Female. UPPERSIDE tawny. Anterior wings with some zigzag lines in the cell, the apical third black, with three white spots at the end of the cell, two near the apex, and two fainter within these, and nearer the costa; two pairs, the inner ones sagittate, between the submedian nervules, and another before the hinder angle. Posterior wings with a brown border (narrowest just below the tip) and with black spots and lunules, forming an almost continuous festooned line; this series commences with two pairs of black spots near the apex, the inner ones slightly bordered with white on both sides; just within these is a rather conspicuous white spot on the costa.

UNDERSIDE reddish-tawny, marked nearly as in the male, but much more distinctly; the pale markings as above, but more extended, and with an additional white spot at the tip and another just below; on the anterior wings the

submarginal markings consist of a double row of white markings, bordered and occasionally intersected by dusky lunules; on the posterior wings there is a double row of whitish obsolete spots, bordered on both sides with dusky sagittate markings. Both wings are crossed beyond the cells by a rather irregular dusky line, and on the costa of the posterior wings the large white spot within it is continued by a smaller one below; and there are two pairs of white spots at the apex, as on the upper side.

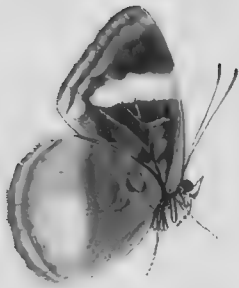
Hab. Barombi, Cameroons (Preuss).

The male is in the Collection of Dr. Staudinger, and the female in the Collections of that gentleman and of Mr. Henley Grose Smith.

The male resembles *C. Altisidora*, Hewitson; the female has no near ally, though it somewhat resembles *C. Haimodia*.



NYMPHALIDAE
 NYMPHALINAE
 LIMENITIS L.



1. 2. 3. 4. 5.

West. House. 1877.

LIMENITIS H. L. L. L. L.
 1. 2. 3. 4. 5.
 1. 2. 3. 4. 5.

NYMPHALIDÆ.—NYMPHALINÆ.

LIMENITIS. I.

I.—LIMENITIS HOLLANDI. ♂. FIGS. 1, 2.

Limenitis Hollandii, Doherty, "Journal of Asiatic Society of Bengal," Vol. LX., Part II., No. 2, p. 177 (1891).

Pantoporia Hollandii, Moore, "Lepidoptera Indica," Vol. III., p. 207.

Exp. $2\frac{1}{8}$ inches.

"*Male*. ABOVE, black; cilia alternately black and white, a double undulating submarginal pale line, touched with whitish apically on the fore-wing; two united white spots placed obliquely subapically above the radial veins, with or without a smaller one below them. A broad common white band, very slenderly cut by dark veins, edged outwardly with purple, across both wings, extending on the fore-wing nearly to the upper median vein, the upper (fourth) piece small, the inner edge of the band straight, the outer irregular. Hind wing with the white band extending nearly to the submedian vein, where it is tapering, both its edges nearly straight.

BELOW, chestnut-red of different shades, the basal two-thirds of the cell mostly white, with a crooked dark mark, an irregular white spot at the end of the cell, its lower side tapering; the white band extends nearly to the lower radial vein; two submarginal pale lines, the inner mostly bluish-white with three white subapical spots, a chestnut longitudinal streak in the interno-median space.

Hind wing with the two submarginal lines regular, grey, undulating, base chiefly white with transverse streaks of chestnut, namely, two in the cell, two between the costal and first subcostal vein, one along the precostal vein, and a long one from the costa tapering to the submedian vein; the white band broad."

Hab. Do Donggo country, Sambawa, above 2,000 feet (Doherty).

In the Collections of Mr. Grose-Smith, and others.

II.—LIMENITIS BOCKI. ♂. Figs. 3, 4.

Limnitis Bockii, Moore, "Transactions of the Entomological Society," p. 308 (1881).

Sumalia Bockii, Moore, "Lepidoptera Indica," Vol. III., p. 154.

Exp. $2\frac{3}{8}$ inches.

♂ *Male*. UPPERSIDE vinous-brown, with a broad transverse medial white band, the inner border of which is sharply defined, the outer border traversed by a parallel lunular brown line, terminating at the apical end in three small white spots; both wings with a pale-bordered lunular submarginal, and a narrower linear marginal band, both bordered with red at anal angle, fore-wing with two discoidal reddish-centred sinuous black streaks, the inner continued beneath the cell.

UNDERSIDE purplish-grey, the broad white medial band defined by a slender black inner line, and a dark red outer line; fore-wing with red costal base, centre of discoidal streaks and apical border dark red, the extreme apex being ochreous; hind wing with white-centred basal discoidal spots, and dark red anal patch."

Hab. Sumatra (Bock).

In the Collection of Mr. Grose-Smith. (Type) "Allied to the N. Indian *L. Duda*. Differs in being a much smaller insect, and having a broader white transverse band."

III.—LIMENITIS CHILO. ♀. Figs. 5, 6.

Limnitis Chilo, H. Grose-Smith, "Annals and Magazine of Natural History," Ser. 6, Vol. XX., p. 515 (December, 1897).

Exp. $1\frac{7}{8}$ inches.

♀ *Female*. UPPERSIDE. Anterior wings chocolate-brown; the disc is crossed beyond the cell by an oblique band of contiguous white spots, divided by the brown veins, and extending from near the costal margin, a little beyond its middle, to near the lowest submedian nervule at one-third from the outer margin; a subapical tawny patch and a submarginal narrow sinuate band. Posterior wings with the basal half chocolate-brown and the outer half pale tawny-brown, with a rather broad brown outer margin and a submarginal sinuate brown line from the apex to the anal angle.

UNDERSIDE. Anterior wings with a reniform pale grey bar crossing the cell about its middle and a white streak at the end of the cell, both margined with red-brown, and two reddish-brown spots below the cell towards the base, the lower smaller than the upper spot; the oblique white discal band extends nearer to the margin and outer angle than on the upperside. Posterior wings with a subovate red-brown ring towards the base below the costal nervure, and several red-brown markings in the cell; two red-brown bars cross the wings, one before, the other beyond the middle; the outer tawny space of the upperside is represented by a pale pinkish-brown area, the submarginal brown line, as on the upperside, edged externally by whitish-brown.

Hab. Sumba, below 2,000 feet (Doherty).

In the Collection of the Hon. Walter Rothschild. A single specimen only, in a battered condition.



NYMPHALIDÆ.—NYMPHALINÆ.

NEPTIS. I.

I.—NEPTIS EBLIS. FIGS. 1, 2.

Neptis Eblis, Butler, "Annals and Magazine of Natural History," ser. 5, vol. 10, p. 43 (July, 1882).

UPPERSIDE. Wings dull black, with a submarginal row of white spots, bordered on both sides with long black spots, darker than the ground-colour, but rather indistinct, especially on the anterior wings, where the spots are smaller and rounder. The space around the spots is rather paler than the rest of the wing, and on the posterior wings there is a third row of long black spots before the hind margin. Costa of posterior wings brownish-grey.

UNDERSIDE lighter brown, anterior wings with a white basal stripe in the cell, followed by a large oblong spot; posterior wings with two white spots at the base of the costa, and at the base of the cell respectively. All the wings with a submarginal row of white spots, larger than on the upperside, between rows of long narrow brownish-white spots, from which they are separated by indistinct black spots; the outer row of brownish-white spots is also edged externally with black ones, but none of the black spots are clearly defined. Inner margin of anterior wings broadly brownish-grey, becoming almost white on the inner margin itself; posterior wings with the basal half of the space between the branches of the front costal nervure paler than the rest of the wing.

Body black, front legs and sides of palpi white; abdomen beneath with grey central and lateral stripes.

Hab. New Britain and Duke of York Island.

In the Collections of the British Museum (type), the Hon. Walter Rothschild, and Mr. H. Grose Smith.

Probably most nearly allied to *N. Heliopolis*, Feld. (Butler).

The type (from New Britain) is rather darker than the specimen figured.

II.—NEPTIS FISSIZONATA. Figs. 3, 4.

Neptis Fissizonata, Butler, "Annals and Magazine of Natural History," ser. 5, vol. 10, p. 43 (July, 1882).

Neptis Pisas, Godman and Salvin, "Annals and Magazine of Natural History," ser. 6, vol. 1, p. 98 (January, 1888).

Exp. $2\frac{1}{2}$ inches.

UPPERSIDE black with white or greenish-white spots; anterior wings with a short streak in the cell, followed by two irregularly-shaped spots, a transverse row of four long spots, and a submarginal row of smaller spots. Posterior wings with a central series of five spots (sometimes a sixth between the second and third from the costa), and a submarginal row of spots, the latter generally preceded and followed by narrow indistinct stripes paler than the ground-colour.

UNDERSIDE similar, but paler, and with the outer line (obsolete on the upperside) between the submarginal spots and the hind margin, developed into narrow white lines between the nervures on all the wings, which is only rarely and imperfectly the case on the upperside. On the hind wings there is a short stripe at the base of the costa, and a pale stripe running from the inner margin across the base of the cell, and less distinctly continued as an evanescent stripe between the subcostal nervules.

Body black, paler beneath; orbits, palpi beneath, and front legs, white; antennæ with the club beneath and at the tip rufous.

Hab. Solomon Islands, Guadalcanar, Florida, Aola, Savo, Alua, St. George's Island, New Georgia, New Britain.

In the Collections of the British Museum, H. Grose Smith, and others.

Allied to *N. Heliadora*, Cramer.

The specimen figured is from Guadalcanar. *N. Pisas*, G. and S., is a slightly differing form of this species found in the Solomon Islands (Fauro, Alu and Treasury I.), in which the submarginal rows of spots on each wing are more or less obsolete, but on comparison with a long series, both in the British Museum (in which Collection that of Messrs. Godman and Salvin is now incorporated), and also with a long series in Mr. Grose Smith's Collection, we do not consider the two forms are sufficiently distinct to warrant their separation into two distinct species; in short, we find it impossible to separate them, the degree of obsolescence of the spots in the specimens from the various Islands before mentioned being very inconstant and much intermixed, both forms being found in the same Islands. In some of the specimens there is a spot a little beyond the middle of the inner margin of the anterior wings, which is likewise inconstant, though more frequently present in the *Pisas* form than in that of *Fissizonata*.

III.—NEPTIS ANCEPS. FIGS. 5, 6.

Neptis Anceps, H. Grose Smith, "Novitates Zoologicæ," I., p. 353 (1894).

Exp. 2 inches.

UPPERSIDE. Both wings dark brown, anterior wings with two minute violaceous-blue spots in the cell, two beyond it between the lowest subcostal and upper discoidal nervule, the outermost centred with white, and a triangular violaceous-blue patch, having its apex between the two uppermost median nervules, and its base on the inner margin about its middle; a submarginal row of eight round white spots, the lowest almost obsolete. Posterior wings with an irregular violaceous-blue bar before the middle, commencing between the subcostal nervules, where it is narrowest, and becoming wider towards the inner margin, where it becomes pale, a submarginal row of white spots, those in the middle most distinct.

UNDERSIDE brown, with a submarginal row of white spots, larger and more distinct than on the upperside. Anterior wings with a grey streak at the base above the cell, and a whitish stripe along part of the inner margin. There are three white spots, slightly tinged with blue, in the cell, and two beyond, the last rather indistinct. Posterior wings with a grey streak at the base of the costa, followed closely by a broad grey band extending partially down the inner margin at the base.

The incisions of all the wings are spotted with white, both above and below.

Body black above, probably with dull blue markings, when fresh; abdomen yellowish in the middle below; palpi and legs streaked with white beneath.

Hab. Humboldt Bay, New Guinea (Doherty, September-October, 1892).

In the Collections of the Hon. W. Rothschild and Mr. H. Grose Smith.

"I have considerable hesitation in describing this as a species distinct from *N. Venilia*, Linn., but the wings are shorter and broader than in that species. In some of the specimens there are white spots in the blue bands, varying in size and number, but in no specimen are they so wide as the white spots in the blue bands in *N. Venilia*, and on the underside of the hind wings the bands which cross the wings are narrower" (H. G. S., *loc. cit.*).

IV.—NEPTIS DORCAS. FIGS. 7, 8.

Neptis Dorcas, H. Grose Smith, "Novitates Zoologicae," I., p. 354 (1894).

Exp. $2\frac{1}{2}$ inches.

UPPERSIDE with spots and markings very like *N. Praslini*, Boisd., from New Ireland, but the wings are brown. On the anterior wings the basal streak in the cell is less linear, and is truncated at its outer end, the spot in the cell beyond it is larger and more quadrate; the outer pair of spots between the median nervules are larger, and the submarginal row of minute spots and streaks which in *N. Praslini* follow the outline of the outer margin, is almost obsolete. On the posterior wings, in place of the white oval patch which covers the middle part of the posterior wings of *N. Praslini*, there is a rather broad white longitudinal band, divided by the black veins, which crosses the wings before the middle from the first subcostal nervule to near the inner margin. The upper spot in this band is separated from the next, except towards the base; the next spot, which traverses the cell, is elongate beyond the cell, and outwardly acute; the other spots below the cell are narrower and diminishing to the inner margin; beyond the middle is a row of subtriangular white spots, larger and more distinct than the row of spots in a similar position in *N. Praslini*, which are linear and less distinct; beyond this is a submarginal row of white streaks as in *N. Praslini*.

UNDERSIDE. The anterior wings resemble *N. Praslini*, but the basal streak in the cell is more dilated, and covers its entire base; the other spots and markings very much as in *N. Praslini*, but whiter. On the posterior wings the outer edge of the longitudinal white band which crosses the wings as above, is very irregular, and less defined than the oval patch of *N. Praslini*; the spots are also whiter.

Body black, abdomen beneath, and legs, brown; front legs white on the inner side; pectus spotted with yellowish-white behind.

Hab. Biak.

In the Collection of the Hon. Walter Rothschild.

"Two specimens, in one of which the triangular spot beyond the cell of the anterior wings is elongated, and extends outwardly as far as the outer side of the two discal spots below" (H. G. S., *loc. cit.*).



NYMPHALIDAE.

LYMPHAE.

NEPTIS II.



West, Newman imp.

NEPTIS MAJUS
NEPTIS MINUS

NYMPHALIDÆ.—NYMPHALINÆ.

NEPTIS. II.

V.—NEPTIS CALLINA. FIGS. 1, 2.

Neptis Callina, H. Grose-Smith, "Annals and Magazine of Natural History," Series VII., Vol. I. (March, 1898).

Exp. $1\frac{3}{4}$ inches.

UPPERSIDE. Both wings dusky-brown; anterior wings crossed beyond the cell by a broad white band, placed rather obliquely and extending from the subcostal nervure at the middle to the lowest median nervule; the upper part of the band at the end of the cell curves abruptly inwards, the lower part of the band being narrower and indented on its outer edge; a rather large white patch on the middle of the inner margin, extending upwards to the lowest median nervule; beyond the band towards the apex are three narrow hastate white markings, and traces of a fourth, enclosing a row of conical spots darker than the ground-colour, followed by two submarginal brownish-white lines, divided by the veins; the cell is crossed beyond the middle by three dark lines and a V-shaped marking towards the base, the spaces between which are paler than the ground-colour. Posterior wings crossed about the middle by a broad white band, the inner edge of which is regular and the outer edge is indented; towards the outer margin between the veins is a row of conical spots, darker than the ground-colour, bordered on either side by dusky-white lines, followed by a submarginal row of narrow lunulate dark bars, narrowly bordered on each side by dusky white lines; the cilia on both wings between the veins narrowly white.

UNDERSIDE brighter and paler brown than above, with the white spots and lines much brighter; on the anterior wings the ground-colour of the cell is brownish-white, and on the posterior wings there is a broad white streak above the costal nervure.

Hab. Cameroons.

In Mr. Grose-Smith's Collection.

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A A

VI.—NEPTIS MIMETICA. ♀. FIGS. 3, 4.

Neptis Mimetica, H. Grose-Smith, "Novitates Zoologicæ," Vol. II., p. 78 (1895).

Exp. ♂ . $2\frac{1}{5}$ inches; ♀ . $2\frac{1}{4}$ inches.

Male. UPPERSIDE greyish-brown. Anterior wings with a curved band of eight white spots across the disc beyond the middle: the first, near the costal margin, linear; the second, the largest, situate farthest from the outer margin; the third, fifth, and sixth about equal in size; the fourth, which is situate between the lowest discoidal and uppermost median nervules, consisting of a short streak; the seventh is extended inwardly at its lower end; the eighth is oval, and situate on the inner margin near the posterior angle. Outside the spots are three rows of brownish-white bars between the veins, the middle bar the broadest; cilia between the veins narrowly white. Posterior wings with the space from the costal margin to near the discoidal nervule paler sericeous; the disc is crossed a little beyond the middle by a row of white spots between the veins, those from the subcostal to the lowest median nervules large and conical, the others indistinct and becoming obsolete; close outside this row is another row of broad whitish-brown bars, divided by the brown veins, traversed a little above their middle by indistinct brown lines; beyond these is a third row of narrower brownish-white bars, followed, a little before the outer margin, by a series of indistinct grey streaks.

UNDERSIDE rufous brown, with the spots and bars as on the upper-side: the cell of the anterior wings is crossed at its extremity by an indistinct paler brown streak.

The female resembles the male, but is larger and rather paler.

Hab. Dili (Doherty).

In the Collections of the Hon. Walter Rothschild and Mr. H. Grose-Smith.
This species mimics *Andazena Oropæ*, Boisd.

VII.—NEPTIS GRACILIS. ♂. FIGS. 5, 6.

Athyma Gracilis, Kirsch, "Proceedings of Zoological Society," p. 276 (1885).

Neptis Dohertyi, H. Grose-Smith, "Novitates Zoologicæ," Vol. II., p. 79 (1895).

Exp. $1\frac{3}{4}$ inches.

Male. UPPERSIDE greyish-black. Anterior wings crossed towards the apex by a row of three white spots placed obliquely, the first near the costa linear, the second and third subquadrate. On the disc is a transverse broad band of confluent white spots: the uppermost, between the two upper median nervules, subovate; the lowest, on the inner margin about its middle, is elongate inwardly towards the base. Between these rows of spots and the outer margin is a row of small whitish spots, those towards the apex the whitest, bordered on each side with indistinct bars darker than the rest of the wings; there is an indistinct pale streak in the cell. On the posterior wings is a very broad white band, which crosses the disc and cell at about its middle; half-way between the band and the outer margin is an indistinct paler brown line, bordered on each side with indistinct darker brown bars; cilia of both wings between the veins narrowly white.

UNDERSIDE chocolate-brown, with the markings as on the upperside. On the anterior wings the submarginal row of small spots is more distinct, and the white subapical and discal bands are bordered outwardly by indistinct sinuate pale lines; along the lower part of the cell is a basal white line, followed at the end of the cell by a narrow subtriangular white spot; there are two submarginal rows of white lines, one in the middle, the other at the posterior angle, bordered outwardly with grey scales. On the posterior wings the shoulder is broadly white, followed by a white streak which crosses the basal part of the cell and extends on either side of the first subcostal nervule; outside the white discal band is a continuous row of white bars following the contour of the wings, with a narrow, rather short, white line above it, commencing on the inner margin, and a submarginal band of narrow white lines.

The female resembles the male, but is rather larger.

Hab. Tenimber (Doherty).

In the Collections of the Hon. Walter Rothschild and Mr. H. Grose-Smith.

VIII.—NEPTIS DULCINEA. ♂. FIGS. 7, 8.

Neptis Dulcinea, H. Grose-Smith, "Novitates Zoologicæ," Vol. V., p. 169 (1898).

Exp. ♂ . $2\frac{1}{5}$; ♀ . $2\frac{3}{5}$ inches.

Male. UPPERSIDE. Both wings velvety black. Anterior wings with a very

indistinct pale basal streak in the cell and a small indistinct white patch at its end; a large white spot on the disc, divided by the middle median nervule, as in *N. Satina*, Grose-Smith, and another elongate spot on the inner margin, nearer the base, edged with bluish scales, both spots being smaller than in *N. Satina*. Towards the apex are two rows of white spots, the inner, two, and the outer three in number, and a narrow white submarginal streak between the two lowest median nervules. Posterior wings crossed a little before the middle by a band of bluish-white from the upper subcostal nervule to near the inner margin, where it is narrowest, being widest above the uppermost median nervule; half-way between the band and the outer margin, towards the apex, are three small indistinct white spots between the veins.

UNDERSIDE with a broad bluish-white streak in the cell, divided by a dark line at about two-thirds from the base, followed by a greyish streak at the end of the cell, and a triangular bluish-white streak beyond, as in *N. Satina*, but less elongate; the other spots and markings as in *N. Satina*, but they are not margined with bluish-white. Posterior wings with two white streaks at the base; the central white band rather wider than on the upperside, but more abbreviated and more indented on its outer edge and of less uniform width than in *N. Satina*; the double row of spots and markings towards the outer margin is whiter.

The female resembles the male, but on the upper side of the anterior wings there is an additional white spot in the cell beyond its middle, and the inner-marginal white spot extends above the submedian nervure. The central white band on the posterior wings is wider and whiter, and the disc is crossed by four white subconical spots, with an indistinct submarginal row of white bars.

Hab. Mafor Island, Geelvink Bay (May and June, 1897, W. Doherty).

In the Tring Museum and Mr. Grose-Smith's Collection (type).

This species should be placed in the genus *Acca* of Hübner.



HYMNOPHILINAE.

HYMNOPHILINAE.

NEPTIS III.



West Newman imp

NEPTIS AMPLINIA
ELEUTHERA
ROMENSIS

NEPTIS ROMENSIS
ROMENSIS

NYMPHALIDÆ.—NYMPHALINÆ.

NEPTIS. III.

IX.—NEPTIS AMPLIATA. ♂. FIGS. 1, 2.

Neptis Ampliata, Butler, "Annals and Magazine of Natural History," Ser. 5, Vol. X., p. 42 (1882).

Exp. $2\frac{1}{2}$ inches.

Male. "Allied to *N. Latifasciata*, Butler, from which it differs in the greater size of the white spots of the primaries, and the much greater width and more oval form of the central white belt of the secondaries; the outer edge of this belt is strongly undulated."

"As *N. Latifasciata* is a common representative of the *N. Heliadora* (Cram.) group, occurring at Cape York, it is hardly necessary to give a detailed description of the above species."

Hab. New Britain and Duke of York Island.

In the Collections of the British Museum, H. Grose-Smith, and others.

X.—NEPTIS ELEUTHERA. ♀. FIGS. 3, 4.

Neptis Eleuthera.

Exp. $2\frac{3}{8}$ inches.

Female. UPPERSIDE closely resembles *Neptis Ampliata*, but the middle spot in the discal row of spots on the anterior wings of that species is absent, and there is no white spot in the middle of the inner margin as in *N. Ampliata*. On the posterior wings the band of white spots which crosses the middle of the wings is wider and of more uniform width than in *N. Ampliata*, and the spots are clustered more closely together; a submarginal band of broad white bars extends round the wings, with an indication of a second band between it and the central band.

UNDERSIDE. Anterior wings closely resemble those of *N. Ampliata*, but the ground-colour is tinged with a pinkish shade. On the posterior wings the sub-basal white spot in *N. Ampliata* is absent, and there is a row of white lines on either side of the submarginal band of broad white bars.

Hab. Stephansort, German New Guinea (Webster).

In the Collection of Mr. Grose-Smith.

The anterior wings of this species are somewhat less elongate towards the apex than those of *N. Ampliata*. Mr. Moore places *N. Ampliata* and allied species in his genus *Hamadryodes*.

XI.—NEPTIS RONENSIS. ♂ . FIG. 5. ♀ . FIGS. 6, 7.

Neptis Ronensis.

Exp. $2\frac{3}{8}$ inches.

Male. UPPERSIDE dark brown, anterior wings with a rather long basal streak in the cell, a quadrate spot in the middle, and a conical spot at the end; a round white spot on the disc between the two upper median nervules, and a minute spot above it near the costa a little beyond its middle, a submarginal row of five spots, of which the lowest but one is the largest.

Posterior wings with a band of white spots crossing the wings a little before the middle, the outermost crossing the cell, the others becoming smaller and narrower to the inner margin; a submarginal row of small white spots crosses the disc. All the spots greenish-white, and for the most part irrorated with greyish-brown scales.

UNDERSIDE. Anterior wings with spots as above, but larger, an additional spot between the middle and lowest median nervule, and an additional outer row of small spots before the outer margin.

Posterior wings with a spot on the costa at the base, two others near the base, and a grey streak below the costal nervule; the white band before the middle is wider than on the upperside and somewhat diffused outwardly, and there is an additional row of small white streaks before the outer margin.

The female resembles the male, but the additional spots on the underside of the male are developed on the upper-side of the female, and on the posterior wings the white band before the middle is wider and more elongate, the band on the underside being bordered outwardly by a row of small spots, contiguous with the band.

Hab. Ron, an island on the coast of German New Guinea (Meek).

In the Collection of Mr. Grose-Smith.

XII.—NEPTIS CONNEXA. ♂. FIGS. 8, 9.

Neptis Connexa.

Exp. 2 inches.

Male. UPPERSIDE. Anterior wings differ from *Neptis Ronensis* in having two large discal white spots between the median nervules, and four small spots, in pairs, towards the apex. Posterior wings differ from that species in the very much greater width of the white band, which covers the whole of the central area.

UNDERSIDE. On the anterior wings the inner of the two submarginal rows of spots is represented by two spots only towards the apex, and two bars between the median nervules nearly contiguous with the discal spots between those veins, and the outer of the submarginal rows is represented by four small white spots only, towards the apex. On the posterior wings the spots in the inner of the two submarginal rows are larger and more lunular than in *N. Ronensis*.

Hab. Ké Islands (Wallace).

In Mr. Grose-Smith's Collection, from the Wilson-Saunders Collection.

This species is considerably smaller than *N. Ronensis* and *N. Nectens*, de Nicéville, described by that gentleman also from Ké Islands, from which it differs in having a much wider discal band on the posterior wings, and on the underside in the very much less conspicuous submarginal rows of spots on both wings.



NEW ZEALAND BUTTERFLIES

BY J. H. HALL

1895



Printed by J. H. Hall

Wellington, N.Z.

THE NEW ZEALAND BUTTERFLY

BY J. H. HALL

NYMPHALIDÆ.—NYMPHALINÆ.

NEPTIS. IV.

XIII.—NEPTIS HELIOPOLIS. ♂ . FIGS. 1, 2. ♀ . FIG. 3.

Phædyma Heliopolis, Feld., Reise Nov. Lep. III., p. 427, No. 677 (1867).

Exp. ♂ . $2\frac{7}{8}$ inches. ♀ . $3\frac{1}{8}$ inches.

Male. UPPERSIDE. Dark brown; anterior wings with a narrow basal streak in the cell, a lunulate spot in the middle, and a triangular spot at the end, irrorated towards its apex with dark scales, two sub-ovate spots on the disc towards the costa, two others between the median nervules, larger than the preceding and nearer the base, and a small elongate spot on the inner margin at one-fourth from the outer margin, a row of transverse submarginal spots, of which the two uppermost are most distinct, the others being nearly obsolete.

Posterior wings with a row of six spots crossing the wings horizontally a little before the middle, of which the spot towards the end of the cell is considerably elongated, and the spot next it, nearer the inner margin, is minute; three indistinct rows of pale spots or bars cross the disc. All the spots are white.

UNDERSIDE. Paler brown than on the upperside, with the spots as on the upperside; both wings crossed beyond the middle by three rows of brownish spots or markings, which are more developed than on the upperside. On the posterior wings the costa at the base is white, and there is an indistinct whitish patch at the base of the cell.

Female. UPPERSIDE resembles the male, but the spots and markings are smaller and clouded by brownish scales; the ground-colour is also paler brown. The UNDERSIDE is likewise paler brown, but the spots and markings are larger and brighter than on the upperside.

Hab. Halmaheira, Dodinga, Batchian, Ternate, Morty.

In the Collections of Mr. Grose-Smith and others.

The figure of the male is taken from a specimen from Ternate, and of the female from a Batchian specimen.

XIV.—NEPTIS POLION. ♂. Figs. 4, 5. ♀. Fig. 6.

Exp. $2\frac{3}{4}$ inches.

Male. UPPERSIDE, dark brown; anterior wings with a round spot in the middle, and another, larger, at the end of the cell, two oval spots on the disc towards the costa, and two others, confluent, between the median nervules; a small spot on the inner margin at one-fourth from the outer angle; two rows of small spots cross the disc towards the outer margin more or less obsolete.

Posterior wings with the disc crossed by a broad band of spots divided by the dark veins, the three middle spots being the largest, the spot nearest the apex the smallest; outside the band is a double row of very indistinct paler markings. All the spots on both wings are greenish-white.

UNDERSIDE rather rufous-brown, with the spots and markings clearly developed, and two submarginal rows of white bars along the outer margins.

The female differs little from the male, but on the upperside the spots are brownish-white, and the submarginal rows are more clearly developed than in the male. On the posterior wings the band of spots is of more uniform width, and there is an additional spot towards the apex.

Hab. Bouru.

In the Collection of Mr Grose-Smith.

DRYINAE MELANODAE.
 NYMPHALINAE.
 LEPTIS 7.



Hana - Pigeon - 1870.

West Newman imp

A. C.	NETTIC	MORTIFACIES.	♂.
B. L.	"	STANIFERA.	♂.
B. C.	"	ASTREA	♂.

NYMPHALIDÆ.—NYMPHALINÆ.

NEPTIS. V.

XV.—NEPTIS MORTIFACIES. ♂. FIGS. 1, 2.

Neptis Mortifacies, Butl., "Transactions Entom. Society," p. 5 (1875).

Exp. 2 inches 5 lines.

"Wings above black-brown, fringe white-spotted; primaries with three points in the cell, two placed obliquely beyond the cell, a subcostal point, and two subapical discal spots (placed obliquely), a large bifid spot (cut by the second median branch) on disc, an elongate bifid spot on inner margin, and an irregular submarginal series of small spots, white; the large discal and the internal spots narrowly edged with dull lilacine scales; secondaries with a broad central subquadrate white band, narrowly edged externally with dull lilacine; six minute discal white points; body dark brown; wings below olivaceous brown, all the white markings much larger than above; discoidal area of primaries reddish-brown, internal area pale brown; a basal subcostal white streak; secondaries with a dirty-white sub-basal band; body creamy-whitish."

Hab. Queensland.

In the Collection of the British Museum, type (from which the figure in the Plate has been taken), and others.

"Allied to *N. Venilia*, Linn. and *N. Illigera*, Esch.; the large discal spot of primaries directed inwards, as in the latter species; the band of secondaries as broad as in the broadest examples of *N. Agatha*, Cram."

XVI.—NEPTIS CYANIFERA. ♂. FIGS. 3, 4.

Neptis Cyanifera, Butl., "Annals Nat. Hist.," Series 5, Vol. I., p. 481 (1878).

Exp. 2 inches.

"Wings above black, bluish towards the base; primaries with a semi-circular blue patch about the middle of the inner margin, and a round white

spot above it, surrounded by blue scales, upon the first median interspace, a white subcostal dot just beyond the cell; two subapical white discal spots placed obliquely, and a submarginal series of six white or whitish small spots; secondaries crossed before the middle by an irregular quinquefid white stripe enclosed in a rather broad blue belt; three or four bluish dots parallel to the outer margin.

Wings below chocolate-brown; primaries below with all the spots white, all, excepting those of the submarginal series (which contains eight small spots), pearly; an additional spot near the end of the cell; secondaries with the base broadly sordid white, crossed by a blackish bar; a pearly-white belt before the middle of the wing; a submarginal series of pinky-white spots and a marginal series of longitudinal pinky-white dashes."

Hab. Port Moresby (type) and elsewhere in British New Guinea.

In the Collections of the British Museum, Mr. Grose-Smith, and others.

"Allied to *N. Brebissonii*, *N. Mortifacies*, and *N. Lactaria*."

XVII.—NEPTIS ASTRÆA. ♂. FIGS. 5, 6.

Athyma Astræa, Butl., "Annals Nat. Hist.," Series 3, Vol. XVII., p. 99 (1866).

Exp. $2\frac{3}{4}$ inches.

Male. "UPPERSIDE brownish-black; front wings with two obliquely-placed large subapical white spots; two larger spots on the middle of the disc; an elongate white spot with a small streak above it on the interior margin, a submarginal row of small white spots; a second outer very indistinct row, pale brown; hind wings with a broad white transverse band from beyond the middle of the interior to the middle of the abdominal margin; three dark brown marginal bands increasing in width towards the middle of the wing.

"UNDERSIDE brown, glossed with pink; front wings—inner margin pale olive-brown; base of costal margin orange; a narrow discoidal streak indistinctly divided in its centre and broadly near its outer termination; spots on the disc as above, but larger; outer margin with four submarginal white bands, the third from the margin broad, and almost divided into spots at the nervures; hind wings—base of costal margin white; an indistinct white streak from the base to near the middle of the costal nervure; central band as above,

but broader; hind margin with four submarginal white bands, the three outer ones approximating, the innermost one indistinct lunulate; a brown dash across the submarginal bands above the middle of the disc.

“Body brown; legs, palpi, and abdomen pale.

“Hab. Aru Islands.”

In the Collection of the British Museum.

“Allied to *N. Kasi*, Moore (Philippine Islands), but, on the upperside, closely resembling *N. Shepherdi*, Moore, excepting in the absence of the discoidal streak.”



HETEROPTERA
 : HALLA AND LASELLA



NYMPHALIDÆ.—NYMPHALINÆ.

EUTHALIA AND TANAECIA. I.

EUTHALIA, Hübn.

I.—EUTHALIA WHITEHEADI. ♂. FIGS. 1, 2. ♀. FIG. 3.

Euthalia Whiteheadi, Henley Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 3, p. 313 (April, 1889).

Exp. ♂ $3\frac{1}{4}$; ♀ $3\frac{1}{2}$ inches.

Male. "UPPERSIDE. Anterior wings dark brown, the costal margin, apex, and a rather broad outer marginal space tinged with olivaceous-green, slightly iridescent, especially towards the outer angle; three dark brown bars across the cell, a small oblong white spot between the basal and middle bar on the subcostal nervure, a narrow, oblong, slightly curved, greyish-white spot immediately beyond the third bar, a fourth bar on the discocellular nervule, and a fifth beyond, the space between the fourth and fifth slightly iridescent olive-green; two rows of three white spots each beyond, converging above the upper median nervule; near the costal margin, between the rows, is one white spot; in the disk, on each side of the lowest median nervule, is a curved, rather narrow, indistinct, whitish-brown marking.

"Posterior wings: basal three-fourths dark brown, outer fourth iridescent dark olivaceous-green, in the middle of which is a row of seven black conical spots, the anal spot double, the three upper spots edged externally with three carmine spots; three larger carmine spots towards the middle, the uppermost below the costal nervure, the other two below the first and second subcostal nervules; an indistinct small red spot near the anal angle.

"UNDERSIDE. Both wings paler and greener than above. Anterior wings with the bars across and beyond the cell as above, the space between the second and third and fourth and fifth bars carmine, the white spots as above; two greyish-white patches, edged internally with brownish-black, on each side of the lowest median nervule; a rather broad whitish-green space on the outer margin, lightest towards the outer angle, becoming obsolete towards the apex, and edged internally with brownish-black.

“Posterior wings with the red spots as above; the submarginal row of black conical spots almost obsolete; across the disk below the lowest red discal spot is a double row of lunular brown markings, the usual basal markings centred with carmine; base of the costa narrowly carmine.

“*Female*. UPPERSIDE paler than the male. Anterior wings crossed about the middle with an oblique white band of four spots; the uppermost crosses the cell, and is indented on each side; the second at the junction of the second median nervule with the median nervure, minute; the third between the second and lowest median nervules, narrowly elongated outwardly at its lower end along the latter; the fourth below it smaller and lunulate. Instead of the two converging rows of three white spots in the apical portion of the male wing, the outer row has two spots only, and there is one spot on the costa.

“UNDERSIDE as above, but paler; the anterior wings have a small annular spot below the cell, which is absent in the male.

“Posterior wings: the two lowest discal carmine spots are represented by two pale whitish-pink patches, edged internally with dark brown, beneath which, bending towards the anal angle, is a double row of lunular markings: the carmine spots within the basal markings are smaller, several being nearly obsolete.” (H. G. S., *loc. cit.*)

Hab. Kina Balu Mountain, North Borneo (Whitehead).

In the Collections of Messrs. John Whitehead (♂, ♀) and Henley Grose Smith (♂).

“Nearest to *E. Lubentina*, Cram., but in the shape of the wings, the position and number of the white markings on the anterior wings of both sexes, and in size differing from that species. It also differs from *E. Djata*, Dist., with the types of which it has been compared, and in which the white spots in the apical portion of the anterior wings are absent. Moreover, in the female of *E. Djata* the white band of spots on the anterior wings are transverse, and different in numerous respects. In *E. Whiteheadi* there are no red lines or markings on the abdominal margin of the posterior wings of either sex.” (H. G. S., *loc. cit.*)

TANAECIA, Butl.

I.—TANAECIA AMISA. ♂. FIGS. 5, 4.

Tanaecia Amisa, Henley Grose Smith, “Annals and Magazine of Natural History,” ser. 6, vol. 3, p. 315 (April, 1889).

Exp. $3\frac{1}{4}$ inches.

Male. “UPPERSIDE. Both wings dark velvety-brown, crossed in the

middle by a pure white band. On the anterior wings the band on the costa is only represented by a narrow short line; thence to the inner margin the band gradually widens; the veins across the band brown; a very indistinct, somewhat curved, white line between the subcostal nervules halfway between the band and the apex; the cell is crossed by five black lines, the two outermost nearly joining each other on the median nervure; between the lowest median nervule and the submedian nervure, near the base, touching the cell at their upper ends, are two transverse black lines crossed at their lower ends by a similar line; a small black spot below the cell, between the lowest and middle median nervules; a submarginal row of indistinct, rather large black spots. On the posterior wings the band gradually tapers towards the anal angle, where it slightly curves outwardly; the outer edge of the band is slightly indented; and there is an indistinct submarginal row of round black spots.

“UNDERSIDE. The band as above; pale brown inside the band, and darker beyond it; the band is edged on both sides with dark brown markings; the subapical, indistinct, curved white line on the upperside is represented by two white spots near the costa, and indistinct whitish-brown markings inside the submarginal row of dark brown spots; the lines across the cell, and beneath it, as above.

“Posterior wings brownish-grey between the band and the base, with numerous brown markings; the area beyond the band is pale brown, with a submarginal row of dark brown spots capped with whitish lunules, above which is a series of lunular brown markings; the outer portion of the band above the latter narrowly grey.” (H. G. S., *loc. cit.*)

In the Collection of John Whitehead.

Nearest to *T. Cibaritis* and *T. Acontius* of Hewitson.



NYMPHALIDÆ.

EUTHALIA II.



From the collection of the author, 1890

Hannart 1111

1 2 EUTHALIA KARDAMA ♂

3 " " ♀

4 5 E. NARAYANA ♀

NYMPHALIDÆ.—NYMPHALINÆ.

EUTHALIA. II.

II.—EUTHALIA KARDAMA. ♂. FIGS. 1, 2. ♀. FIG. 3.

Adolias Kardama, Moore, "Transactions of the Entomological Society of London," n.s., vol. 5, p. 80, v. 40, pl. ix., fig. 3 (1859).

Exp. ♂. 3–3½in.; ♀ 4–4¾in.

Male. UPPERSIDE olive-green, shading into greenish-brown on the hind margins, and with the incisions whitish; anterior wings with a curved black line near the base in the cell, and a small spot below it, and two dark green irregularly oval figures bordered with black crossing the cell, the first just beyond the middle, the second (more irregular) at its extremity; below the first is a like-coloured ring, followed by a dash; beyond the cell is a curved row of eight white spots surrounded with black, well separated, and all, except the sixth and seventh, with a nervure between; the eighth, above the inner margin, obsolete; nearer the tip are two white subcostal spots, and from beyond the second, a row of obsolete blackish submarginal spots runs down nearly to the inner margin.

Posterior wings with a narrow oval figure, open beneath, at the extremity of the cell, and a row of six greenish-white spots, more or less surrounded with black, on a whitish or pale greenish ground, beyond which is a row of obsolete blackish spots; inner margin greenish-grey.

UNDERSIDE yellowish-green, whitish towards the inner margin of the anterior wings; anterior wings with the spots much more distinct, and increasing towards the inner margin, so that the three last form an almost continuous band; the neighbourhood of the lower white spots is also blotched and dusted with black, especially on the inner side.

Posterior wings with four irregular oval markings in and above the cell, a transverse row of five white spots, hardly surrounded with darker, and a submarginal row of seven indistinct oval black dots.

Female larger and paler. UPPERSIDE similarly marked, but the white spots in the lower half of the anterior wings, as well as on the posterior wings,

bordered with paler green; spot eight of anterior wings distinct; the sixth on the posterior wings absent.

UNDERSIDE as in the male, but the upper part of the submarginal row of black spots is very nearly obsolete; on the posterior wings, the corresponding black dots are only distinct below the middle of the wing, and the five white spots, though smaller (especially the first), are much more sharply defined than above, and a sixth (absent above) is represented by a black dot.

Hab. China (Moore); Thibet.

In the Collections of the Hope Museum at Oxford, of Henley Grose Smith, and others. The specimens from Thibet are larger, but present no important differences in marking.

III.—EUTHALIA NARAYANA. ♂. Figs. 4, 5.

Exp. $2\frac{1}{2}$ inches.

Female. UPPERSIDE olive-green, incisions white. Anterior wings with five transverse blackish lines in the cell, below the second and third of which (together) is a ring and a small oval; an oblique transverse row of six white oval spots, only divided by the nervures, commencing with an oval dash on the costa; the sixth spot is narrower than the others, and curved downwards; nearer the apex are two more white subcostal spots; the second largest; the apical portion of the wing is darker than the rest, but without distinct lines.

Posterior wings with two subcostal white spots near the apex, two blackish transverse lines in the cell, and two obsolete blackish undulating lines towards the hind margin; inner margin brown, fringed with tawny hairs.

UNDERSIDE of a paler blue-green, but marked nearly as above; anterior wings with the costa tawny, the white dash commencing the transverse row absent; the other spots slightly edged with darker, and the inner margin almost entirely slaty-blue or black.

Posterior wings with irregular zigzag markings in and above the cell, and a row of five white spots running from the costa, beyond which is a row of black dots.

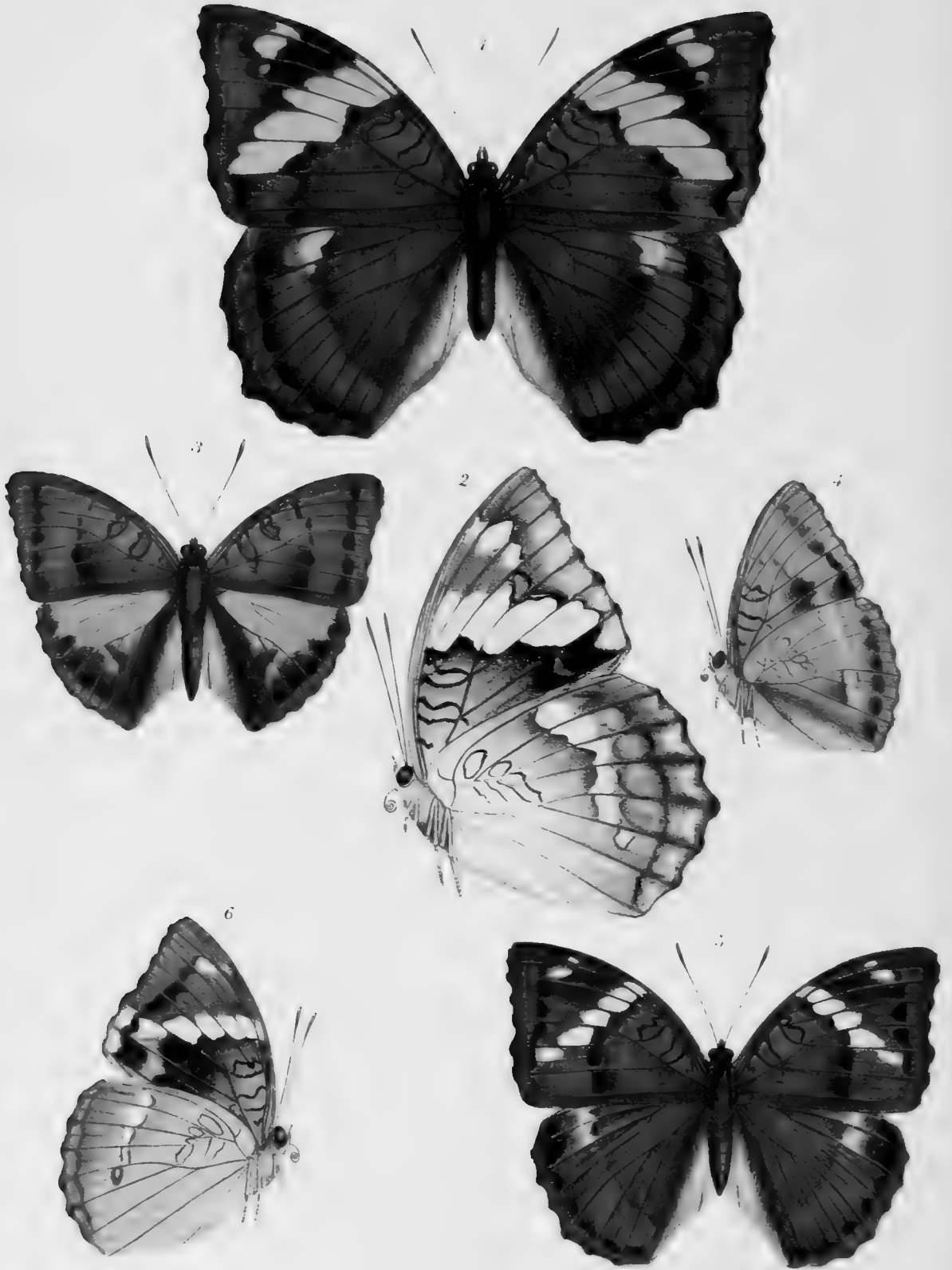
Hab. Burmah (Ruby Mines).

In the Collection of Henley Grose Smith.

Allied to *E. Nara*, Moore, from Sikkim, but in that species the spots of the anterior wings are much longer and broader, extending almost to the hind margin above the hinder angle, both above and below; on the posterior wings there is only one spot on the upperside, but on the underside a continuous row of much larger spots nearly to the anal angle.



EUTHALIA III.



1,2 EUTHALIA CONFUCIUS.

1891

CONFUCIUS

NYMPHALIDÆ.—NYMPHALINÆ.

EUTHALIA. III.

IV.—EUTHALIA CONFUCIUS. ♀. FIGS. 1, 2.

Adolias Confucius, Westwood, "Genera of Diurnal Lepidoptera," p. 291, n. 16, note (1850).

Exp. 4 inches.

Female. UPPERSIDE olive-green, hind margins rather strongly dentated, and the incisions marked with white.

Anterior wings with the cell crossed by a basal line, and two paired lines partially connected beneath, the first followed below by a ring and a streak. A broad oblique stramineous band, divided into spots by the nervures, runs from the costa to the lowest discoidal nervule; below it two obsolete dusky bands run to the inner margin. Between the band and the apex are three spots of a paler yellow, the middle the largest, the lowest reduced to a dot.

Posterior wings with two obsolete brown stripes beyond the middle; towards the apex, above the inner stripe, is the commencement of a yellow band, divided by the nervures, and ending in a small dot below the first subcostal nervule; cell closed by two parallel black lines, close together.

UNDERSIDE pale greenish-blue, with basal lines as described in *E. Omeia*. (*infra*.) Costa and nervures inclining to ferruginous. Anterior wings with the band and spots as above, but paler; the band edged with black within, rather broadly towards the inner margin; the spots bordered outside by a zigzag black line, which curves inwards below, and borders the lower part of the band on the outside. Apical third of the wing, beyond the band, greenish.

Posterior wings crossed beyond the middle by two zigzag black lines (the outermost nearly obsolete above) enclosing a pale greenish-blue space, the upper part of which is marked by a whitish spot, divided into three by the nervures, the first linear, the third macular. There is also a slightly waved dusky band nearer the hind margin. Outside the band the ferruginous nervures are more or less bordered with greenish, and are marked at the extremity with black, between the white incisions.

Body greenish-brown above, paler beneath, especially the legs; antennæ ferruginous beneath.

The male resembles the female, but is rather smaller. On anterior wings the oblique stramineous band has an additional small oval and distinct spot below the lower discoidal nervule; and on the posterior wings the yellow band beyond the middle consists of three or four spots, the lowest nearly obsolete.

Hab. China.

In most of the principal Collections.

The specimen figured has been compared with the type in the Museum at Oxford.

V.—EUTHALIA OMEIA. ♂. Figs. 3, 4.

Euthalia Omeia, Leech, "Entomologist," vol. 24, Suppl. p. 29 (1891).

Exp. $2\frac{3}{4}$ inches.

Male. **UPPERSIDE.** Anterior wings pale olivaceous-brown, the costa tinged with dull greenish; cell crossed by a black line directed inwards, near the base, two black lines, slightly curving outwards, and enclosing a space darker than the rest of the wing, about the middle, and two more, the outermost dentated, at the extremity of the cell. These paired lines are connected below, and less distinctly above; and the first pair is followed, beneath the cell, by a black ring. Beyond the cell runs a curved dusky stripe, rather ill-defined on its upper portion, but expanding about the middle of the wing into a large dark brown blotch, which merges in a dark brown stripe filling up the space below the submedian nervure. Another slightly curved brown stripe runs down from the costa near the apex to the inner margin, above which it expands, but into a much smaller blotch than the first stripe. Hind margin bordered with a blackish line; fringes marked with white between the nervures.

Posterior wings with the basal half filled up with a large buff-yellow blotch, not extending to the inner or hind margin; it is indented on the outside, and at its lower and outer extremity it throws off a short oblique stripe nearly parallel to the curve of the hind margin. The rest of the wing (except a pale submarginal stripe) is of a rather darker olivaceous-brown than above.

UNDERSIDE dull greenish-yellow. Anterior wings with the black discoidal lines as above, but the paired lines are not united at the extremities. The two outer bands are narrower than on the upper side, and ill-defined on the upper

half of the wing, but much more distinct below. Posterior wings with an elongate oval line above the cell, and two pairs of lines beneath this; the outermost line is festooned. Beyond the middle of the wing are faint indications of two obsolete transverse lines, reddish above, and greenish below; towards the inner margin the wing is greenish, and there is also a submarginal greenish band.

Body dull greenish above, and buff beneath; antennæ black above; the tip, and the undersurface ferruginous.

Hab. Omei-Shan, N.W. China.

In the Collections of Messrs. J. H. Leech and Henley Grose Smith.

This species has very little resemblance to any other *Euthalia*; Mr. Leech compares it to *E. Anyte*, Hewitson; but in *E. Omeia* the posterior wings are more produced, and quite differently marked.

VI.—EUTHALIA CONSOBRINA. ♀. FIGS. 5, 6.

Euthalia Consobrina, Leech, "Entomologist," vol. 24, Suppl. p. 29 (1891).

Exp. 3-4 inches.

Female. UPPERSIDE dark olive-green, with a submarginal dusky band; and the incisions white. Anterior wings with pale spots arranged nearly as in *E. Narayana* (*antea*, p. 6, *Euthalia*, pl. ii. figs. 4, 5), but the spots are of a more yellowish-white, and those of the lower part of the band are larger and more oval. Posterior wings with the commencement of a pale obsolete band on the costa just before the apex, but with no distinct spots.

UNDERSIDE. Anterior wings green, with yellowish nervures, and the costa yellow, more broadly beyond the middle. The pale spots are arranged as on the upperside, but are of a clear white, except the small oblong spot nearest to the costa. A blackish submarginal stripe commences outside the lowest of the two subcostal spots, and merges into a black space standing above the outer half of the inner margin, but not quite reaching the hinder angle. The white band of transverse spots is bordered with black on the inside, and the lowest spot is followed by a bluish band running obliquely inwards, and then turning downwards to the submedian nervure. At this point it becomes slate-colour, as is also the space below the submedian nervure. This is followed by a whitish stripe above the dull yellowish-brown fringes of the inner margin. The lower part of the hind margin likewise inclines to whitish. Posterior wings

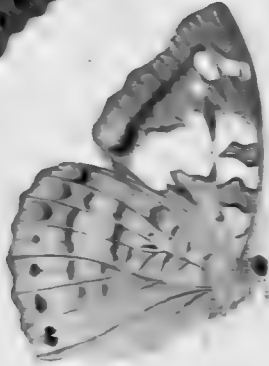
bluish-green, more inclining to yellowish on the outer and upper half. A row of five white spots running from the costa, arranged nearly as in *E. Narayana*, and a submarginal brown band, but no distinct black dots.

Body dull green above, beneath pale yellow, face between the antennæ and palpi blue; antennæ tawny beneath and at the tip.

Hab. Omei-Shan.

In the Collections of Messrs. J. H. Leech and H. Grose Smith.

Allied to *E. Pratti*, Leech, and *E. Patala*, Koll.



NYMPHALIDÆ.—NYMPHALINÆ.

EUTHALIA. IV.

VII.—EUTHALIA LUDONIA. ♂. FIGS. 1, 2. ♀. FIGS. 3, 4.

Euthalia Lubentina, var. *Ludonia*, Staudinger, "Iris, Dresden, Band II. Deutsche Entomologische Zeitschrift: Lepidopterologische Hefte." II., pp. 72, 73 (1889).

Exp. 52–63 millim.

Male. UPPERSIDE dark olive-brown, hind margin scalloped, and narrowly blackish. Anterior wings with five thick black lines across the cell, the first and last waved, the middle ones nearly straight; beyond these a row of rather indistinct black spots between the nervures runs from the subcostal nervure to the submedian nervure; and there is a more distinct submarginal row of black spots between the two nervures just mentioned. Posterior wings rather pointed; two black lines at the end of the cell; two series of five short streaks between the branches of the subcostal and median nervures, diverging above, where the three uppermost parallel streaks are separated by red spots, the lowest of which is very minute; there is also a red spot on the costa at two-thirds of its length. A submarginal row of seven black spots, of which the first three, and the anal spot, which is more elongated than the others, adjoin red spots on the outside.

UNDERSIDE of a more rufous-brown; incisions slightly marked with white. Anterior wings: costa paler, inner margin inclining to purplish; five lines in the cell as above, the space between the second and third and the fourth and fifth filled up with red; between the third and fourth is another short black dash; under the fork of the lowest median nervule is a small black spot; beyond the cell runs a series of irregular blackish markings; two irregular spots, an imperfect circle, and a streak, beyond the upper part of which is a short dash, and the lower part of which forms an acute angle towards the base. Apex with a large oval pale greenish blotch, below which runs a blackish submarginal band, partly divided by the nervures. Posterior wings with the inner margin shading into olive, and a large glaucous-green patch on the lower half of the wings. Costa bordered with red, a black spot below on the precostal nervure, and with three

rows of red spots running from below the costal nervure ; the first consists of a spot below the costal nervure, with a black line on each side, and two small spots in the cell, with a slightly waved black line on each side ; the second series is composed of four rather long spots, commencing at about half the length of the costal nervure, which are edged with black on the inside, and tipped with black externally ; the series is continued below by two blackish rings between the median nervules. The third series (three spots) is submarginal, and is marked on the inside with black dots, which form the uppermost of a series of seven ; the last, at the anal angle, forms an oval blotch, slightly constricted in the middle, and marked on the outside by a large red spot.

Body olive-green, palpi beneath, hinder orbits, and tibiæ striped with red.

Female. UPPERSIDE olive-brown. Anterior wings with five black lines in the cell, the first curved, and with a curved line below, the second nearly straight, the third and fourth curved, and the space between filled up with a broad white bar ; the fourth and fifth united a little above the median nervure, into a **V**, the outer side of which borders the third of a series of six rather large white spots of various shapes, extending between the subcostal and submedian nervures. Half-way between the three upper spots and the apex is a curved row of four more white spots, smaller and more widely separated than the others, of which the two middle ones are the largest ; the space between the spots of the two series is marked with obsolete dark bands. Just beyond the outer series of spots is a submarginal blackish band, most distinct below, where it terminates at the submedian nervure. Posterior wings with a black dot towards the upper part of the cell, and another outside it, and two black lines, converging below, towards the extremity of the cell ; beyond this is a broad red band between the subcostal and submedian nervures, widest in the middle and edged with an irregular black line on both sides, divided by the nervures ; a little nearer the base is a red spot on the costa, bordered with white above and slightly with black on both sides. The lower half of the posterior wings is of a dull olivaceous-green, with a slight æneous reflection. There is a submarginal row of seven black spots, the three uppermost with red spots bordering them on the outside ; that at the anal angle is longer than the others, and is also bordered outside with a red spot.

UNDERSIDE. Anterior wings light brown, marked as above, but the two curves near the base are reduced to spots, and the spaces between the second and third and fourth and fifth lines are filled up with red. Posterior wings greenish towards the upper part and bluish towards the lower part, the base of

the costa bordered with pale red; two interrupted black lines in and above the cell, with red markings between; beyond these, the V-shaped mark encloses a red spot; above it is a curved line, and above that an outer black and inner red spot; the red band and costal spot are nearly obsolete, and the submarginal markings are less distinct than above.

Hab. Palawan.

In the Collections of Dr. Staudinger and Mr. H. Grose Smith.
Belongs to the group of *E. Lubentina*, Cram.

VIII.—EUTHALIA ADEONA. ♀. FIGS. 5, 6.

Exp. $2\frac{1}{2}$ inches.

Female. UPPERSIDE. Very similar to that of *E. Ludonia* ♀, but of a darker and less greenish-brown; on the anterior wings the white spot in the cell and those immediately beyond it are narrower, while those between the median nervules are wider. On the posterior wings the red band is nearly obsolete, narrower in the middle than in *Ludonia*, only a faint shading of its upper part being visible between the enclosing festooned lines; the submarginal black spots are subtriangular, and the greenish patch at the anal angle is much smaller and less æneous.

UNDERSIDE nearly as in *E. Ludonia* ♀, but the anterior wings and upper half of the posterior wings are of a light brown, and all the lower part of the latter, below the median nervure, except a narrow border, of a greyish-blue. The submarginal markings are more distinct, and the basal markings equally so, but the traces of the red central band are even fainter.

Hab. Silam, North Borneo (Cator).

In the Collection of Mr. H. Grose Smith.
Taken Jan. 26th, 1892.

IX.—EUTHALIA IRRUBESCENS. ♂. FIGS. 7, 8.

Euthalia Irrubescens. H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 11, p. 316 (1893).

Exp. $2\frac{1}{2}$ inches.

“*Male*. UPPERSIDE. Anterior wings with the basal half dark green, almost black, the outer half paler and slightly metallic, the veins with streaks between them on the paler portion of the wings, being the same colour as the basal half; the cell is crossed in the middle by an irregular crimson bar, and there is another crimson bar, narrower and somewhat indistinct, at the end of the cell. Posterior wings the same colour as the basal half of the anterior wings, being paler across the disk, and traversed by the dark veins with streaks between, as on the outer half of the anterior wings; two dark bars cross the cell, and there is a crimson elongate spot parallel with the outer margin between the submedian nervure and the lowest median nervule; the costal margin is pale and tinged with a bluish shade.

UNDERSIDE similar to the upperside, but paler. Anterior wings with crimson bars across and at the end of the cell wider and more distinct, and a small black spot below the median nervure at its juncture with the lowest median nervule. Posterior wings with two crimson bars crossing the cell, two crimson spots below the costal nervure and upper median nervule respectively, another crimson spot on the costal margin near the precostal nervure, and another at the base; on the outer margin at the ends of the dark streaks between the veins is a row of crimson spots, those nearest the anal angle the most distinct and those in the middle nearly obsolete; the inner margin from the base to the anal angle is broadly edged with crimson. Antennæ black, the collar and palpi crimson.”

Hab. Omeishan.

One specimen only.

Allied to *E. Lubentina*, Cramer, var. *Ludonia*, Staudinger, and *E. Whiteheadi*, Grose Smith. In the Collection of H. Grose Smith.



THE BUTTERFLY
OF THE
TROPICAL REGION



NYMPHALIDÆ.—NYMPHALINÆ.

EUTHALIA V.

X.—EUTHALIA STREPHON. ♂. Figs. 1, 2.

Euthalia Strephon, H. Grose-Smith, "Annals and Magazine of Natural History," Ser. 6, Vol. XI., page 216 (March, 1893).

Exp. $2\frac{1}{2}$ inches.

Male. UPPERSIDE. Olivaceous green. Anterior wings crossed beyond the middle from the costal to the submedian nervures by a pale greenish-yellow band irrorated with dusky scales, widest on the costa, narrowest between the two upper median nervures; a small yellowish somewhat elongate spot near the costal margin and a larger oval spot of same colour beneath it, at the outer edge of the band; the space between and on each side of the dark bars which cross the cell is also pale greenish yellow. Posterior wings with a pale greenish-yellow curved band, following the contour of the outer margin, from the middle of the costa, gradually narrowing and becoming obsolete towards the lowest median nervule; an oval dark ring crossing the cell, and an indistinct submarginal row of dark olivaceous green subconical spots, becoming obsolete towards the anal angle.

UNDERSIDE. Olivaceous yellow. On the anterior wings the yellowish-green band is more clearly defined and edged on each side with black, narrowly towards the costa, gradually and irregularly becoming broader towards the submedian nervure, where it ceases. Posterior wings with the pale greenish-yellow curved band as above, bordered on each side with olivaceous green, the space round the spots in the cell and on the outer margin being the same colour as the central band.

Hab. North-west China (Yankowski).

In Mr. Grose-Smith's Collection.

Nearest to *E. Omeia*, Leech, which it somewhat resembles in colour, but the posterior wings are very different.

Five specimens were sent, apparently all males.

DICHORRHAGIA I.

DICHORRHAGIA NESSEUS. Figs. 3, 4.

Dichorrhagia Nesseus, H. Grose-Smith, "Annals and Magazine of Natural History," Ser. 6, Vol. XI., page 216 (March, 1893).

Exp. $2\frac{3}{8}$ inches.

Male. UPPERSIDE. Dark bluish-green. Anterior wings with the cell crossed by three black bars, that nearest the base nearly obsolete; beyond the cell, across the disk between the veins, is a curved row of indistinct greyish spots, between which and the outer margin is a row of V shaped greyish markings, elongated inwardly to the extent of about one-third of the wings, those towards the apex being more elongate and narrower than the others; the outer margin is black. Posterior wings more bluish green than the anterior wings and without grey markings, except three narrow submarginal V shaped lines near the apex, with grey lines at their base, the lowest almost obsolete; on the outer margin between the veins is a series of black conical spots. The veins on both wings are black.

UNDERSIDE. Anterior wings bluish black, with the spots beyond the cell more distinct and the bars crossing the cell violaceous, the outer of which is almost obsolete; the V shaped markings as on the upperside, but more distinct. Posterior wings dark olivaceous, the submarginal V shaped lines at the apex as on the upperside, and continued indistinctly along the outer margin, between the veins, to the anal angle.

Hab. North-west China (Yankowski).

In Mr. Grose-Smith's Collection.

Near to *D. Nesimachus*, Boisd. but quite distinct.



APATURA I



1,2 APATURA FASCIOLA.
3,4 " " " " " "
5,6 " " FULVA

NYMPHALIDÆ.—NYMPHALINÆ.

APATURA. I.

I.—APATURA FASCIOLA. ♂. FIGS. 1, 2.

Apatura Fasciola, Leech, "Entomologist," vol. 23, p. 33 (1890).

Exp. 3 inches.

Male. UPPERSIDE brown, with a tawny band, more or less macular on the anterior wings, extending from beyond the middle of the costa of the anterior wings to the middle of the inner margin on the posterior wings; all the wings with a narrow tawny border, which is preceded by a series of long submarginal spots, except on the upper part of the anterior wings. On the anterior wings the central band consists of seven spots, the two first and three last nearer the base than the others; the third, fourth, and fifth the longest, but the fifth widely interrupted on its outer half; subcostal nervure edged with tawny above; near the apex is a triangular white spot, with a very small dot below it; a black dot near the anal angle of the posterior wings represents the ocellus of the underside.

UNDERSIDE silvery-grey, shading into tawny towards the margin; anterior wings with two tawny stripes across the cell, the outermost most distinct; a tawny line, much interrupted on the upper part of the anterior wings, crosses all the wings, following the course of the inner boundary of the tawny band of the upper surface; on the posterior wings it is bordered outside with brown. Near the apex of the anterior wings the white triangular spot is larger than above, and is followed by three white dots placed obliquely; on the posterior wings there is a more regular series of five bluish-white spots, followed by a black eye with a bluish-white pupil, and yellowish iris, surrounded by a narrower brown ring.

Body dark brown above, mostly white beneath; orbits white, palpi white, lined and tipped with black; antennæ black above, yellow beneath, except the club. Anterior wings with the hind margin rather deeply emarginate; posterior wings regularly rounded and scalloped.

Hab. Chang Yang, Omei Shan.

In the Collections of Messrs. J. H. Leech and H. Grose Smith.

Mr. Leech's specimens were taken at Chang Yang in July and August. He does not allude to any difference between the sexes, except in dimensions, which he gives as follows:—

♂. 74 mm.; ♀. 82 mm.

II.—APATURA SUBCÆRULEA. ♀. FIGS. 3, 4.

Apatura Subcærulea, Leech, "Entomologist," vol. 24, Suppl. p. 29 (1891).

Exp. 3 inches.

Female. UPPERSIDE greenish-brown, with a common white band, divided into spots by the nervures, interrupted and set inwards below the cell of the anterior wings; the last spot above the inner margin of the anterior wings, and the band on the posterior wings, are greenish; the latter ends in a point above the usual subanal spot. Anterior wings with a white spot near the apex, a white dot below it, and a row of four submarginal spots towards the hinder angle; the first of these is whitish, and nearer the base than the others, which are tawny; between the second spot and the central band is a large obsolete black spot. Posterior wings with narrow dull tawny-brown marginal and submarginal fasciæ.

UNDERSIDE light bluish-green, anterior wings blackish towards the inner margin, all the pale markings are white, with hardly any tawny shade; the bands are mostly bordered with greenish-yellow; above the lowest branch of the median nervure is a very large black spot in a yellowish ring. The posterior wings are traversed by two nearly straight and parallel greenish-yellow lines, between which the space is of a more silvery-green than the rest of the wing, and corresponds to the pale stripe of the upperside; the outer stripe is more diffused than the other, and passes over the black subanal ocellus, which has a white pupil and a broad orange-yellow iris; at the anal angle it joins the continuous greenish-yellow submarginal line.

Body greenish above, white beneath; palpi white, tipped with black; antennæ yellow; club black; wings shaped nearly as in the last species, and with very narrow whitish fringes.

Hab. Omei Shan.

In the Collections of Messrs. J. H. Leech and H. Grose Smith.

The specimen figured does not quite agree with Mr. Leech's description of the species. His specimens were taken in June and July, and he gives the dimensions as follows:—
"♂. 88 mm.; ♀. 100 mm."

III.—APATURA FULVA. ♂. FIGS. 5, 6.

Apatura Fulva, Lecch, "Entomologist," vol. 24, Suppl. p. 30 (1891).

Exp. 3 inches.

Male. UPPERSIDE tawny. Anterior wings with the apex brown, which colour is continued narrowly along the hind margin nearly to the hinder angle.

The tawny colouring above the subcostal nervure is continued nearly to the apex, and terminates in a fork; below this point are two tawny spots. At the extremity of the cell is a broad black bar, followed obliquely below by a brownish space, and then by a large black spot above the lowest submedian nervure, below which is a smaller black spot nearer the hind margin; the inner margin is brownish, especially towards the base.

Posterior wings with moderately broad dark brown borders, marked with a row of submarginal lunules; the lower half of the wing is brownish, marked with a black spot in a broad tawny ring near the anal angle, and with another tawny spot above it.

UNDERSIDE. Anterior wings light tawny, shading into greenish towards the apex; the only distinct markings are two small white subapical spots, and a large black submarginal spot above the lowest branch of the median nervure.

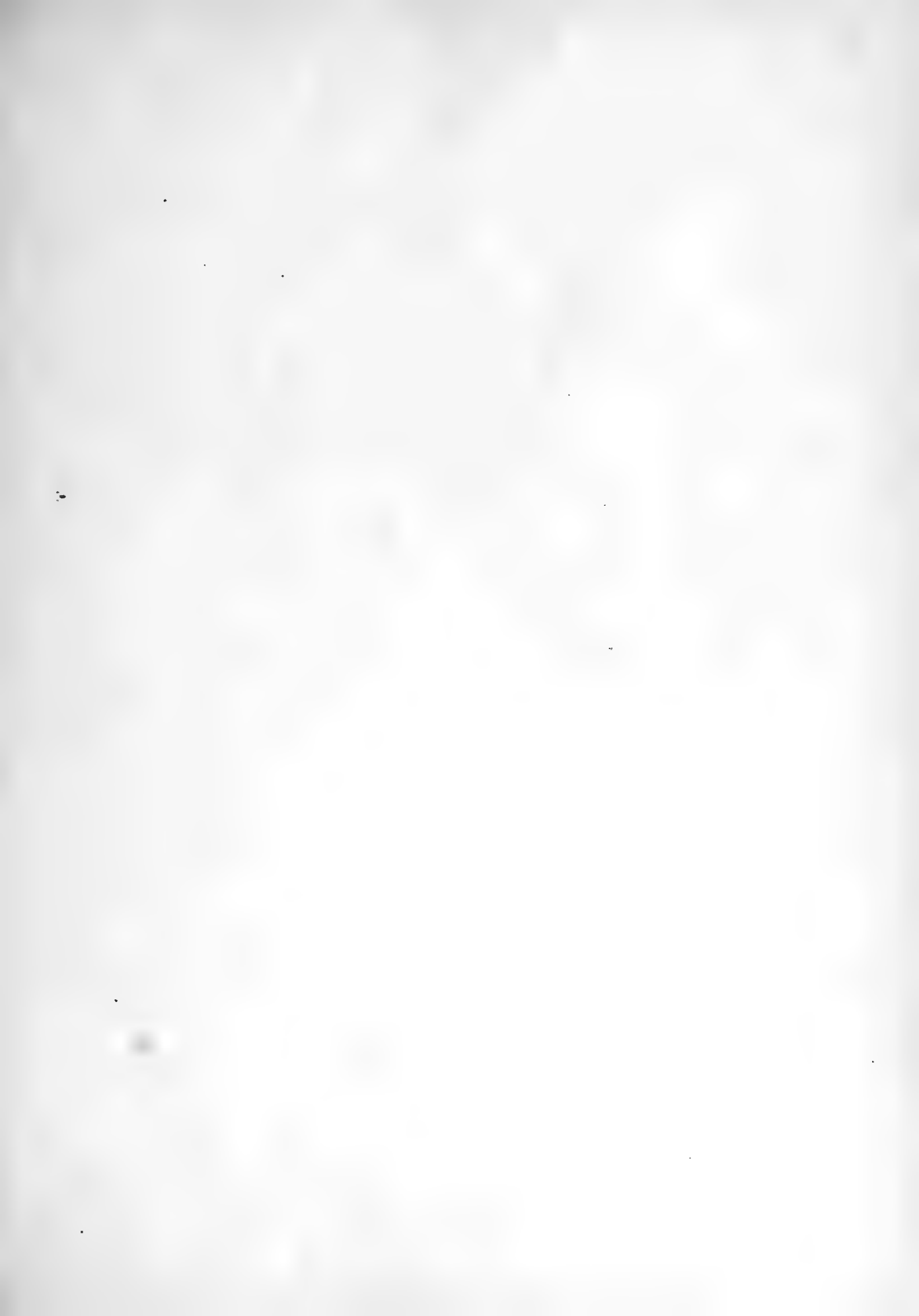
Posterior wings greenish-tawny, slightly iridescent; a dull tawny slightly waved stripe runs from the middle of the costa to above the subanal ocellus, which is black, with a blue pupil, and a paler inner and darker outer yellowish iris; the central stripe is edged outside on the costa with greenish-white, and between it and the hind margin is a row of four rather suffused whitish spots; there is also a tawny submarginal line.

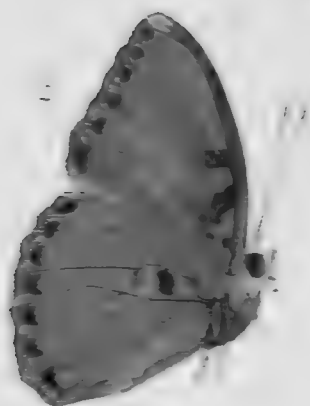
Body tawny above, more greenish beneath; palpi tipped with black above, antennæ tawny, club black. Anterior wings subfalcate, deeply emarginate; posterior wings scalloped, and unusually produced at the anal angle.

Hab. Omei Shan.

In the Collections of Messrs. J. H. Leech and H. Grose Smith.

This species, though apparently a true *Apatura*, has some resemblance to *Dilipa Morgiana*, Westw. (a North Indian species) both in shape and colour.





NYMPHALIDÆ.—NYMPHALINÆ.

EUPHÆDRA I.

I.—EUPHÆDRA OCTOGRAMMA. ♂. FIGS. 1, 2.

Exp. $2\frac{3}{4}$ inches.

Male. UPPERSIDE coppery green, with black borders; towards the base bluish, with large black spots. Anterior wings with a black spot at the base of the cell, a broad transverse one in the middle, and another at the extremity; the basal space between the fork of the median and anal nervures is also black. Hind margin black, with two or three small black spots on its inner border below the tip. Posterior wings with a large black spot in the middle of the cell and another at the extremity; hind margin broadly black, especially towards the anal angle, with a row of seven large pale blue spots, gradually increasing in size from the costa to the anal angle. Inner margin black, the long hair with a slight reddish shade.

Fringes black, white at the tip of the anterior wings, and the incisives very slightly marked with white, and on the posterior wings still less so.

UNDERSIDE dull green, with an orange shade running parallel to the inner margin of the posterior wings; anterior wings with a square white spot at the tip, below which runs a submarginal row of long or subsagittate black spots between the nervures to the anal angle of the posterior wings; fore wings with a black spot at the base of the cell, and irregularly 8-shaped spots in the middle and at the extremity; below the median nervure is an incomplete oval mark; posterior wings with an 8-shaped mark in the middle of the cell, and a hollow oval at the extremity.

Eyes purple, orbits white, legs brown, tarsi (and likewise palpi) yellowish.

Hab. Cameroons.

In the Collection of Henley Grose Smith.

A very distinct species, but perhaps most nearly allied to *E. Francina*, Godt. (*Sophron. Doubl. and Hew.*).

II.—EUPHÆDRA JOHNSTONI. ♀. FIG. 3. ♂. FIG. 4.

Euphadra Johnstoni, Butler, "Proceedings of the Zoological Society of London," 1887, p. 569.

Exp. 3 inches.

Male. UPPERSIDE rich brown, shading into black on the apical half of the fore wings; anterior wings with a white spot at the tip, and an oblique orange-yellow band extending across the wing at two-thirds of its length, and almost touching both the costa and the hind margin; posterior wings with the fringes white towards the tip, and with a purple shade just before the anal angle.

UNDERSIDE pale silvery blue, fore wings with a white spot at the tip, and the oblique yellow stripe replaced by a white one, which is edged within by a black line; the cell with one black spot at the base and two in the middle, and its extremity marked with a thick irregular black line; inner margin azure-blue. Posterior wings with the cell marked as on the anterior wings; a white band indistinctly edged within with black runs from the middle of the costa as far as the median nervure beyond the cell; a whitish stripe runs along the fold parallel to the inner margin.

Orbits, and two spots behind the antennæ white, palpi, front legs, and middle of body beneath yellow, legs black above, the femora white beneath, and the tibiæ and tarsi ochreous beneath.

Female. Very like the male, but with a blue spot on the inner margin of the anterior wings before the hinder angle, surmounted by a small blue dot; there is no blue towards the anal angle of the posterior wings. Under surface almost identical, the white markings a little paler, and the black line at the end of the cell of the anterior wings less marked; a double obsolete row of sub-marginal white spots running round all the wings, is a little more distinct than in the male; between these runs a row of obsolete spots a little darker than the rest of the wing.

Hab. Cameroons (Johnston).

In the Collections of the British Museum and of Henley Grose Smith.

Allied to *E. Luperca* and *Losinga*, Hew.



NYMPHALIDÆ.—NYMPHALINÆ.

EURYPHENE I.

I.—EURYPHENE EUSEMOIDES. ♀. FIGS. 1, 2.

Exp. nearly 3 inches.

Female. UPPERSIDE. Anterior wings brownish-black, the fringes white at the tip, and (very slightly) along the hind margin; five large sulphur-yellow spots in two oblique rows; the first crossing the end of the cell, and the second (larger) beyond and below it; two contiguous spots at two-thirds of the length of the wing, and another beyond and below them. Posterior wings rufous-pink, with a broad black border on costa and hind margin, the base black, and one or two obsolete black spots beyond. Fringes mostly white for two-thirds of the length of the hind margin; inner margin yellow.

UNDERSIDE. Anterior wings brown, marked as above, but the basal half of the cell is filled up with rufous-pink as far as the first yellow spot, within which are two small black spots; nearer the base is another black spot in the cell; and the base of the costa is rufous-pink. Posterior wings rufous-pink bordered with brown, which shades into dull yellow towards the anal angle; inner margin yellow; a black spot near the base of the costa; cell with a black spot near the base, two small ones in the middle, and a small one at the extremity; beyond the cell is a longitudinal yellowish blotch.

Palpi yellow beneath. Abdomen ringed with white.

In the Collections of Messrs. Philip Crowley and Henley Grose Smith.

This remarkable insect, although apparently belonging to *Euryphene*, is more like *Euphædra Perseis*, Dru., than any other butterfly; but still more closely resembles the group of African moths of which *Eusemia Euphemia*, Fabr., may be regarded as the type.

II.—EURYPHENE INNOCUA. ♂. FIGS. 3, 4.

Exp. $2\frac{1}{4}$ inches.

Male. UPPERSIDE dark brown, obscurely shaded with greenish and reddish cupreous, especially on the posterior wings, the dark spotting of the under-

surface showing through towards the base; an oblique orange-tawny band across the anterior wings just beyond the middle, which turns parallel to the hind margin almost at a right angle, where it is marked with three brown spots, and ceases just below the second median nervule.

UNDERSIDE varied with olive-brown, the space above the subcostal at the base, and the space in and about the cell dusted with pale bluish; anterior wings with a black spot near the base of the cell, followed by an irregular transverse constricted one about the middle, and two irregular lines, the outermost followed by black blotches just beyond the cell; beyond these an irregular row of black blotches runs beyond and below the cell; these are followed by a buff blotch on the costa, and a greenish stripe running from it; at the tip is a bluish-white spot. Posterior wings with three black spots in the cell, and a double line at the extremity; a series of four decreasing black spots runs from the costa to beyond the cell, and these are bordered on the outside with a rather indistinct whitish stripe; towards the inner margin the wing shades into yellowish, and the hind margin is bordered by an obsolete broken dark line, occasionally varied with bluish-grey.

Hab. Cameroons.

In the Collection of Henley Grose Smith.

Allied to *E. Cutteri*, Hew.

III.—EURYPHENE ELPINICE. ♂. Figs. 5, 6.

♀. *Euryphene Elpinice*, Hewitson, "Entomologist's Monthly Magazine," VI. p. 97 (1869); "Exotic Butterflies," IV., *Euryphene* VIII. and *Aterica*, figs. 34, 35 (1871).

♂. Henley Grose Smith, "Annals and Magazine of Natural History," ser. 5, vol. 19, p. 63 (January, 1887).

Exp. $2\frac{1}{8}$ to $2\frac{1}{10}$ inches.

"Male. UPPERSIDE brown; anterior wings with the costa, apex, and exterior margin broadly dark brown, a small spot in the cell near the base, another in the middle shaped like the figure 8, another at the end of the cell; a series of irregular, indistinct, brown markings from beyond the centre of the costa to the inner angle, confluent towards the costa; a yellowish-brown spot near the apex.

"Posterior wings: costa broadly brown, exterior margin and anal angle

brown, a figure-of-8 spot in the cell, and an indistinct submarginal band of brown linear spots.

“UNDERSIDE. Anterior wings dark purplish-brown, light pinkish-brown in the cell between the spots, of which there are three—one small near the base, a figure-of-8 spot in the middle, a smaller spot at the end of the cell, beyond which is a pink spot and another at the apex; a submarginal row of brown spots. Posterior wings pale purplish-brown, a figure-of-8 spot in the cell, and an irregular band of dark purplish-brown before the middle; a submarginal row of brown linear spots.” (H. G. S., *loc. cit.*)

Hab. Old Calabar (Hewitson); Cameroons (H. G. S.).

The female is in the Hewitson Collection (British Museum), and the male in that of Henley Grose Smith.

The male resembles *E. Plautilla*, Hew., in shape, but the wings are more scalloped.





NYMPHALIDÆ.—NYMPHALINÆ.

CHARAXES. I.

I.—CHARAXES VIOLETTA. FIGS. 1–3.

C. Violetta, Henley Grose Smith, *Entomologist's Monthly Magazine*, xxi., p. 247 (April, 1885).

“UPPERSIDE, ♂. Anterior wings dark brown, suffused slightly with violet, with a curved row of violet-blue spots across the middle of the wings, and a submarginal row of similar spots from near the costa to the inner margin, the lower half of the two rows becoming confluent; the two submarginal spots near the apex nearly white. Posterior wings with a broad central band of violet-blue, suffused with white from the second subcostal nervule to the abdominal fold near the anal angle; above this band are two pairs of violet-blue spots, a submarginal row of seven small spots, and a row of elongated spots on the margin on each side of the nervules, all violet-blue suffused with white.

♀. Anterior wings with a broad curved band across the centre of the wings from the costa to the inner margin, and two white transverse spots near the apex. Posterior wings: the inner half from near the base, white, suffused with violet; a submarginal row of small white spots, and a marginal white line intercepted by the nervures, both suffused with violet.

“UNDERSIDE. Both wings as in *C. Cithæron*,* except that the central black line across both wings, which is broadly bordered on the outside with white, is straight and continuous, not irregular and interrupted as in *Cithæron*. This species on the upperside has a general resemblance to *Cithæron*; it is more violet-blue, and is smaller in size, particularly the female, which is not so large as the male *Cithæron*, while the underside of both sexes is very distinct from *Cithæron*.

“Exp. $3\frac{1}{8}$ inches. Hab. Delagoa Bay.” (H. G. S., in *Entomologist's Monthly Magazine*, l. c.)

In the Collection of Henley Grose Smith.

The nervures on the fore wings in this species are very prominent, and all those on the costa are of a brownish-red, both above and below, especially in the male, as in other species of this group. There are four small white spots on the top of the head between the eyes, and the inner margin of the hind wings is densely hairy, especially in the male.

* *Charaxes Cithæron*, Feld. “Wiener Entomologische Monatschrift,” iii., p. 398, t. 8, f. 2, 3 (1859), from Natal. It is treated by Trimen (“*Rhopalocera Africæ Australis*,” Pt. I., p. 169 (1862) as a variety of the well-known *C. Xiphæes*. Cramer (figured in his “*Papillons Exotiques*,” iv., t. 377, A. B.; and the male (as *Thyestes*) in Stoll's Supplement to Cramer, t. 32, f. 2, 2 B.).

II.—CHARAXES PORTHOS. Figs. 4, 5.

C. Porthos, Henley Grose Smith, *Entomologist's Monthly Magazine*, xx., p. 57 (August, 1883).

“UPPERSIDE, black. Anterior wings with a row of six blue spots, forming a band from near the apex to near the middle of the inner margin, the first spot small, the others gradually larger, the spot on the inner margin being the largest; a blue spot within the cell near the discocellular nervules. Posterior wing with a similar band of spots from the centre of the anterior margin across the middle of the wing to the fold; a submarginal row of eight minute bluish-white spots, and a marginal thin blue line extending from the inner margin beyond the tail, which is small.

“UNDERSIDE resembles *C. Nesiöpe* and *C. Mycerina*.* This species differs from *Nesiöpe* in the position of the blue spots on the upperside of both wings, and the row of small white spots on the posterior wing, and from *Mycerina* in the absence of the broad blue band within the cell of anterior wing, as well as in the position of the band of blue spots on both wings, and on the posterior wing in the substitution of the row of small white spots and the thin blue marginal line for the band of blue spots on the margin of *Mycerina*.

“Exp. 3 inches. Hab. Cameroons (Fuller).” (H. G. S., in *Entomologist's Monthly Magazine*, l. c.)

In the Collection of Henley Grose Smith.

The specimen figured is a male. The under surface is more uniform in colour, with more sharply-defined markings than in *C. Nesiöpe*. The fore wings are of a light reddish-brown, darkest on the hind margin below the apex, beyond the brown line (only distinct below), which runs to the inner margin at two-thirds of its length; in the cell, near the base, are two round black dots, in whitish rings, the upper one furthest from the base; there is a black streak on the upper part of the discocellular nervules, and two black irregular undulating lines, interrupted by the nervures, cross the wings, one within the cell, and one beyond it, each narrowly edged with whitish; the palest part of the wing is between the outermost line, and the obsolete brown line running from below the tip. The hind wings are of a more silvery and paler grey than the fore wings, with two undulating interrupted lines similar to those on the fore wings, the innermost nearer the base, the outermost running (more faintly below) as far as the lowest median nervule; from a point corresponding to the obsolete brown line on the inner margin of the fore wings a slightly curved dull-reddish line runs nearly to the anal angle; nearer the hind margin is a row of eight white dots, as above, the two nearest the anal angle being nearest together and marked with black; along the hind margin runs a red line, commencing opposite the second spot from the costa, and ceasing nearly opposite, or a little before the seventh spot.

* *Nymphalis Nesiöpe*, Hewitson, “Exotic Butterflies,” I., *Nymph.* t. 1, f. 5, 6 (1854), Sierra Leone. *N. Mycerina*, Godart, “Encyclopédie Méthodique. Histoire Naturelle,” IX., p. 369, n. 65 (1823); Doubleday and Hewitson, “Genera of Diurnal Lepidoptera,” t. 33, p. 2 (1850), Sierra Leone.

NEW MONARCHIDAE MALAYA



NYMPHALIDÆ.—NYMPHALINÆ.

CHARAXES. II.

III.—CHARAXES NICHOLII. Figs. 1, 2.

Nymphalis Nicholii, Henley Grose Smith, "Ann. and Mag. Nat. Hist.," ser. 5, vol. 18, p. 150 (1886).

Exp. $3\frac{1}{2}$ inches.

"Anterior wings slightly falcate.

"UPPERSIDE. Blue-black, dark brown towards the base, and nervures also brown, crossed beyond the middle by a double row of white spots, hastate inwardly, the two lowest of each row being confluent, and tinged with yellow; below the spots at the inner angle is a yellowish-white longitudinal band extending nearly half-way along the inner margin; white marks on the margin between the veins, hardly visible towards the apex, and gradually becoming more distinct towards the inner angle. Posterior wings dark brown at the base, covered with long brown hairs, the outer half creamy-white, tinged with yellow, and deeply dentated by the dark brown colour of the base, which partially follows the veins; the veins at the margins have hastate markings; a sub-marginal row between the veins, of black spots, white in the centre, the second spot nearest the costa being the largest, and geminate spots at the anal angle. The first median nervule slightly projects, forming an indication of a tail.

"UNDERSIDE pinkish-grey, with numerous dark markings, crossed in the middle of both wings by an irregular dark band, and growing paler towards the margins. Thorax and abdomen brown. Antennæ black.

"A beautiful and distinct species, in shape resembling the *Polyxena* group, but the tail is less pronounced." (H. G. S., l. c.)

Hab. Burmah (Dr. Nichol).

In the Collection of Henley Grose Smith.

IV.—CHARAXES NEPENTHES. FIGS. 3, 4.

Charaxes Nepenthes, Henley Grose Smith, *Entomologist's Monthly Magazine*, XX., p. 58 (1883).

Exp. $3\frac{1}{3}$ inches.

“UPPERSIDE straw colour. Anterior wing with the costa and apical portion of the wing as in *Eudamippus*, Doubl., dark brown with a submarginal row of small spots, inside of which is another row of larger spots, with two still larger spots between the subcostal nervules, all straw colour. A quadrangular dark brown spot at the end of the cell, the lower end of the spot on the outside extending down the upper and middle disco-cellular nervule. Posterior wing with a double row of submarginal black spots, the outer row elongate, the inner row hastate, distinct from it, not joined as in *Eudamippus*, Doubl., and *Dolon*, Westw., two tails bluish-grey; outer margin black.

“UNDERSIDE silvery-white. Anterior wing with a fulvous band, irregularly marked outside with black, extending from the costa beyond the middle to near the inner angle; beyond which is a row of indistinct dark marks, and a fulvous band on the outer margin; two black spots within the cell; two black lines on the upper and middle disco-cellular nervules, the inner one sinuate, under which are two black spots: near the costa, about half-way between the cell and the first fulvous band, are two more small black spots. Posterior wing with the double row of submarginal spots as above, the inner row bordered inside with a fulvous band, which, near the anal angle, joins an irregular fulvous band, extending down the wing along the abdominal fold from the costa, near the base, to the anal angle, where it joins a marginal fulvous band bordered with grey. On either side of the band down the wing are several black lines and spots, and two transverse black elongate spots on the abdominal fold, a little above the anal angle.

“Near to *Eudamippus*, Doubl., and *Dolon*, Westw., but quite distinct.” (H. G. S., l. c.)

The posterior wings are tinged with yellow above, between the black marginal line, and the outer row of submarginal spots. On the under surface the double row of submarginal spots are strongly marked on the posterior wings; on the anterior wings they are much less distinct, and those of the outer row are scarcely visible, except towards the anal angle.

Hab. Siam (Beck).

In the Collection of Henley Grose Smith.



CHARAXES. III.



1. 2. CHARAXES EPIGENES. 3.

3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

M. A. C. 1871.

NYMPHALIDÆ.—NYMPHALINÆ.

CHARAXES. III.

V.—CHARAXES EPIGENES. ♂ FIGS. 1, 2; ♀ FIGS. 3, 4.

Charaxes Epigenes, Godman and Salvin, "Annals and Magazine of Natural History," ser. 6, vol. 1, p. 210 (March, 1888).

Exp. $3\frac{1}{2}$ inches.

Male. UPPERSIDE brownish-black, anterior wings marked with five small yellow spots beyond the cell, and seven submarginal ones of the same colour. Posterior wings immaculate, with the exception of seven small submarginal blue lunules, that nearest the anal angle being double.

UNDERSIDE reddish-brown, anterior wings with the apical portion and outer margin paler, the spots of the upper side white, and those beyond the cell margined on the inside with black, a black line at the end of the cell, and two white ones crossing the cell; the outer externally, and the inner internally, bordered with black. Posterior wings with two white transverse lines, one passing through the cell, externally bordered with black, the other beyond it, with an internal black border. There are seven dark red discal spots, bordered on the inside with lilac, and entirely surrounded with black; and a series of submarginal black spots, and the margin itself black, the former bordered with bluish-white; the median vein and its first branch are produced into short tails.

Female. UPPERSIDE spotted as in the male, but with a broad milky-white common band, extending from the second median branch of the anterior wings nearly to the inner margin of the posterior wings, and broadly bordered with bluish on the latter.

UNDERSIDE much paler than in the male, but the spots larger and better defined, and the white common discal band much broader.

Hab. Aola, Guadalcanar Island (C. M. Woodford).

In the Collections of Messrs. Godman and Salvin, and Henley Grose Smith.

Mr. Woodford's Collection contains a male and several females of this distinct species, which has no near ally that we know of. [O. S.]



THE NEW HOLLANDER.
CHARAXES IV



CHARAXES ALBISTER



NYMPHALIDÆ.—NYMPHALINÆ.

CHARAXES. IV.

VI.—CHARAXES NICHETES. ♂. FIGS. 1, 2. ♀. FIG. 3.

Charaxes Nichetes, H. Grose Smith, "Entomologist's Monthly Magazine," vol. 20, p. 58 (August, 1883).

Charaxes Hamatus, Dewitz, "Entomologische Nachrichten," vol. 10, p. 285, fig. (October, 1884).

Exp. $2\frac{3}{4}$ to $3\frac{1}{4}$ inches.

Anterior wings falcate, emarginate below the apex, and convex above the hinder angle. Posterior wings scalloped, slightly emarginate before the anal angle, which is rather pointed, especially in the male; in the female there are two slight projections, hardly to be called tails, one on each side of this emargination.

Male. UPPERSIDE rich tawny with a purple gloss in certain lights; a common dark brown band runs from the apex of the anterior wings to the middle of the inner margin of the posterior wings; anterior wings with two dark brown spots within the band, and nearly confluent with it, near the costa, two more about the middle of the wing, a large spot at the end of the cell, and a smaller one within it; hind margin rufous-brown, with two obsolete spots near the hinder angle. Posterior wings with the basal portion within the central band, except on the costa, dark brown; inner margin greyish; a submarginal row of eight black eyes, and two black dots near the anal angle.

UNDERSIDE rufous-brown, with a slight pearly-grey lustre, anterior wings with two brown spots, followed by two streaks in the cell, three incomplete circles between the streaks and the inner margin, an 8-shaped mark near the costa beyond the cell, and an oblique line from the costa to the inner margin between the 8-shaped mark and the apex; and two or three small bluish-white spots at the apex. Posterior wings with a C-shaped brown mark in the cell, resting on the median nervure, an angulated mark above, and another below, a streak at the end of the cell, a series of rather irregular linear dashes crossing the wing beyond,

and a submarginal row of eight small whitish dots, the lower ones each resting on a black dot.

Female. UPPERSIDE similar to the male, but the tawny markings paler, and the brown markings much more extended and suffused; the tawny outer portion of the wings being much more distinctly divided into spots by the nervures. Posterior wings with a submarginal brown band, on which rest eight yellowish-tawny spots, mostly crescent-shaped; the last dot at the anal angle is whitish.

UNDERSIDE. As in the male, but a distinct common brown line runs obliquely from within the apex of the anterior wings to the middle of the inner margin of the posterior wings, to which it turns at an angle; outside this is a row of obsolete zigzag markings, most distinct on the posterior wings. The other markings differ little.

Hab. Cameroons (Fuller).

The male is in the Collection of Messrs. Godman and Salvin, and the female in that of Henley Grose Smith.

Allied to *Charaxes Lucretius*, Cram.; but the female has a superficial resemblance to some of the East Indian *Charaxes* of the group of *C. Polyæna*, Fabr.

VII.—CHARAXES LASTI. ♂. FIGS. 4, 5.

Charaxes Lasti, H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 3, p. 131 (February, 1889).

Exp. ♂ 2 $\frac{5}{8}$, ♀ 3 $\frac{3}{8}$ inches.

Male. All the wings rather strongly dentated; anterior wings moderately pointed at the apex, and with the hind margin concave in the middle. Posterior wings with two slender tails near the anal angle.

UPPERSIDE. Anterior wings tawny, with a hook-shaped brown spot at the end of the cell, followed by a transverse row of brown spots, of which five are most distinct, two close together near the costa, and the others between the branches of the median and the submedian nervures; the hind margin and apex are varied with brown, leaving a row of seven submarginal tawny spots, running from the apex, and followed by a large tawny blotch at the hinder angle; there is also a second row of four detached tawny spots on the upper portion of the wing; and the lowest is bounded within by a long pointed brown streak extending to between the second and third of the transverse spots; below it is another small brown spot. Posterior wings tawny, with the slightly darker basal region

marked by an indistinct line, commencing in a brownish spot near the costa; there is also a submarginal row of brown spots, of which only the three uppermost are distinct; and two black dots, partially surrounded with white and pale blue at the anal angle.

UNDERSIDE pinkish-brown, with some reddish transverse markings in and beyond the cells; anterior wings with a bluish spot in the middle, bordered within by a black spot, and on the outside by a black subtriangular dash. Above the hinder angle, on the hind margin, are two cone-shaped spots, joined at the base, and pointing outwards, marked above and below, and with the space between filled up, with pale blue. Posterior wings with a transverse silvery-white stripe, bordered within with black, and a little irregular in its lower portion, and with a row of obsolete white submarginal dots, those nearest the anal angle most extended, and surmounting a large greenish-grey blotch.

“*Female.* UPPERSIDE. Both wings brighter and lighter than in the male; the basal third of anterior and basal and outer thirds of posterior wings darker, the markings as in the male, but more strongly developed, and the hook-shaped spot at the end of cell of anterior wings is represented by a broad bar beyond the end of the cell.

“UNDERSIDE much paler, the light red markings across the cell, and the basal third of the wings more clearly defined.” (H. G. S., *loc. cit.*)

Hab. Mombasa (Last).

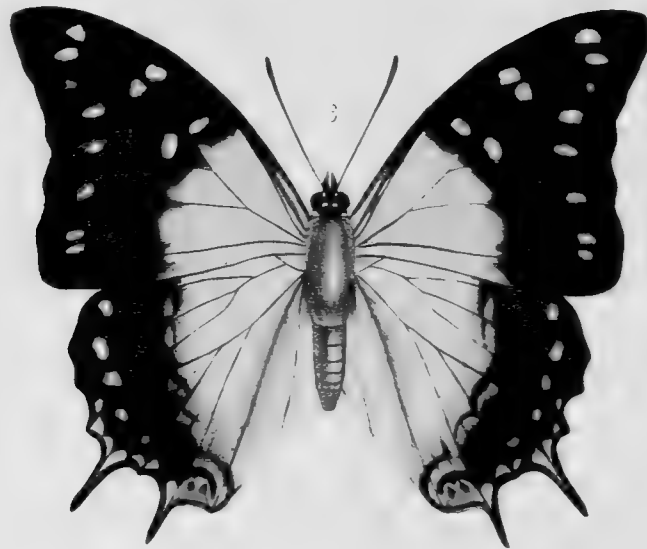
In the Collection of Henley Grose Smith.

Somewhat resembles *C. Cynthia*, Butl., on the underside.



NYMPHALIDÆ.

CHARAXES. V



W. H. Edwards del.

W. H. Edwards imp.

12 CHARAXES ATILA. ♂
34 GALAXIA. ♂



NYMPHALIDÆ.—NYMPHALINÆ.

CHARAXES. V.

VIII.—CHARAXES ATTILA. ♂. FIGS. 1, 2.

Charaxes Attila, H. Grose Smith, "Entomologist's Monthly Magazine," vol. 25, p. 301 (1889).

Exp. ♂ . $3\frac{1}{2}$ inches, ♀ . 4 inches.

Male. UPPERSIDE. Anterior wings black, with pale ochraceous markings; from the middle of the inner margin runs a band divided into three spots by the nervures, the lowest long, the second rather longer than it is broad, and slightly indented on each side, and the uppermost nearly round; above this are four spots, one between the first and second median nervule, one nearer the base at the end of the cell, and the other two between the three lower subcostal nervules; there is also a submarginal row of seven or eight spots of nearly equal size between the nervules; two spots standing in the wider space above the submedian nervure.

Posterior wings bicaudate, black, with a broad greenish-white band across the middle, whitest in the centre, and extending from the costa to the fold; hind margin with a submarginal bluish-white stripe, within which, on the upper part of the wing, are several small whitish spots.

UNDERSIDE with dull greenish-yellow, silvery-white, and black markings; the nervures brown.

Anterior wings white at the base, the cell crossed in the middle by a broad black bar, and terminated by a large black ring with a dull yellow centre. From the middle of the inner margin a white band runs upwards, but it is wider than on the upper surface, and the white spots above it are replaced by irregular and nearly confluent blotches. These white markings are bordered within by disconnected black stripes; and below the bar which crosses the cell are other irregular black markings. Beyond these markings, the outer part of the wings is dull yellowish-green, with a broad irregular white band, edged within with a black line, and enclosing several blotches of the ground colour. There is also a blackish space towards the inner margin between the two white bands.

Posterior wings greenish-yellow at the base, the nervures broadly black; crossed before the middle by a greenish-yellow band, the lower end of which terminates on the lowest median nervule; the band is bordered on each side by a rather broad black line, on each side of the band is a silvery-white space, the inner space extending over the region of the abdominal fold; beyond the outer silvery space, which is widest on the costal margin, is a curved, dusky, greenish-brown line, followed by a narrow silvery space, and by an ill-defined band, tawny above, and below with three rufous crescents filled up with black. Outside this is a white band, and a greenish-yellow one bordered on both sides by a black line, the outermost being on the hind margin.

Female similar, but on the upper side the spots are larger, and the pale band on the posterior wings is narrower, and followed on the outer side by a detached row of pale green spots. On the posterior wings, too, the submarginal greenish-white band is broken into long spots, which are likewise continued down the centre of the tails nearly to their extremity. There is also a distinct inner series of long spots, the five uppermost of which are white, and the rest (and also the lower part of the fifth) pale greenish. The undersurface scarcely differs from that of the male.

Hab. Guadalcanar (Woodford).

The male is in the Collections of H. Grose Smith and Messrs. Godman and Salvin, and the female in the Collection of the former.

Allied to *C. Jupiter*, Butler (*Lepidoptera Exotica*, p. 14, pl. 5, figs. 6, 7 (1869), from Dorey (New Guinea), but in *P. Jupiter* the spot at the end of the cell is nearly double, and the row of submarginal spots ceases before reaching the hinder angle; and there is a tawny stripe at the anal angle of the posterior wings, which is wanting in *C. Attila*. The undersurface of *C. Jupiter* is of a more uniform greenish-yellow, the space in the cell and above it is tawny instead of white, as in *C. Attila*, and the white markings generally are less extended; the short black bar which in *C. Jupiter* crosses the space between the lowest discoidal and upper median nervules of the anterior wings before the white spot there, is absent in *C. Attila*.

IX. CHARAXES GALAXIA. ♂. FIGS. 3, 4.

Charaxes Galaxia, Butler, "Proceedings of the Zoological Society of London," 1865, p. 633, pl. 37, fig. 2.

Charaxes Gracchus, Staudinger, MS.

Exp. $3\frac{1}{2}$ inches.

Male. UPPERSIDE. Black, incisions white, the base broadly creamy-white, with more or less of a greenish shade, especially towards the base of the anterior wings, and on the posterior wings. Anterior wings with two pairs of white spots towards the costa, one pair near the end of the cell, and one pair half-way

between these, and the submarginal row of eight white spots between the nervules; of these the third is nearly obsolete, and the two last stand on the wider space above the submedian nervure. Posterior wings with a series of submarginal greenish-white irregular spots on the lower half of the wing; within these is a second row of five spots, the two uppermost white, and nearer the costa; towards the anal angle is a yellow dash surmounted by two black spots, bordered above by two continuous bluish-white arches.

UNDERSIDE clay-yellow. Anterior wings with the nervures surrounding the cell mostly black; a creamy-white band runs from the subcostal nervure across the cell to the inner margin; the narrowest part crosses the cell, and is bordered in the cell by a black stripe on each side, the innermost broadest, and very slightly edged with pale on the inside; on the outside it curves round, forming another band which closes the cell, and is bordered outside with whitish; below and beyond this, is another black stripe edged outside with white, between the first and second submedian nervules. A curved black line, edged outside with white, runs from the costa at about five-sixths of its length, and is lost in the usual blackish space towards the inner margin. Between this and the cell is another irregular black band, edged outside with white and not crossing the last subcostal nervule; and there is also a row of seven submarginal spots between the nervures.

Posterior wings clay-yellow, paler towards the margins; nervures mostly black towards the base. On the upper half of the basal part of the wing are three black stripes, the innermost edged with white on the inner side, and nearly straight, the others are edged with white on the outside, and the second is most waved; below the last are two small black spots, and beyond it is a tawny stripe, with a black dash above it, and another just beyond its commencement. Beyond the black and white stripe, the tawny stripe is continued by a series of three more distinct tawny lunules, edged outside with black, and inside with white and black, which extend to the anal angle; within the last is a large V-shaped mark, edged outside with whitish, on the inner margin. Hind margin black, with white incisions; within this is a row of yellow spots, followed by black ones edged within by nearly confluent white lunules. At the anal angle, and on the tails are some greenish-white markings.

Hab. Timor.

In the Collections of the British Museum and of Henley Grose Smith.

This species was received by Mr. Grose Smith under the unpublished name of *C. Gracchus*; but after it had been figured, Mr. Butler was so kind as to point out its identity with *C. Galaxia*. Eutl.

NEW ZEALAND FLIES MUSCULUS



NYMPHALIDÆ.—NYMPHALINÆ.

MYNES. I.

I.—MYNES HERCYNA. ♂ FIGS. 1, 2. ♀ FIG. 3.

Mynes Hercyna, Godman and Salvin, "Annals and Magazine of Natural History," ser. 6, vol. 1, p. 211 (March, 1888).

Exp. 2·7 inches.

Male. UPPERSIDE. Anterior wings black, the greater part of the cell, a triangular spot beyond it, and three oval spots between the median vein and its branches, milky-white; a small spot near the costa and an indistinct subapical band of spots of the same colour. Posterior wings black, with a large central milky-white spot.

UNDERSIDE. Anterior wings black, somewhat extensively varied with large white spots, a round red spot near the outer margin between the median vein and its second branch. Posterior wings black, with a large central white spot slightly tinged with yellow on its inner border, the outer black border marked with four subconcentric rings, the two inner ones composed of greenish-yellow scales, the two outer ones white; a large greenish-yellow patch near the anal angle; the base of the costa red.

Body dark, palpi white, front legs yellowish, antennæ black.

Female. UPPERSIDE similar to the male, but much darker, the light spots being smaller. There is a yellow spot near the outer margin, between the median vein and its first branch.

Hab. Aola, Guadalcanar Island, Solomon Group (C. M. Woodford).

In the Collections of Henley Grose Smith and Messrs. Godman and Salvin.

The Collection recently brought by Mr. C. M. Woodford from the Solomon Islands contained several specimens of this species, which appears to be quite distinct from any previously described. Its nearest ally is *Mynes Woodfordi*, G. and S., from Alu Island, in Bougainville Straits. This may be distinguished by the greater extent of the milky-white colour of the upperside of the anterior wings, which moreover forms a more continuous spot, covering the discal area and most of the cell. In *M. Hercyna* this spot is broken into five by the veins. (O. S.)

II.—MYNES EUCOSMETOS. ♂ FIGS. 4, 5. ♀ FIG. 6.

Mynes eucosmetos, Godman and Salvin, "Proceedings of the Zoological Society of London," 1879, p. 653.

VOL. I., JULY, 1888.

Exp. ♂, 2·7; ♀ 3·2 inches.

Male. UPPERSIDE. Wings pale milky-white, with a faint yellow tint, the costa and outer margin of the anterior wings black, the apex sprinkled with whitish scales, and crossed by a curved row of five spots of the same colour, the base of the wings and the inner border of the black margin pale grey; outer margin of the posterior wings broadly black, edged inwardly with pale grey.

UNDERSIDE. Base, costa, apex, and a curved band from the middle of the costa to the anal angle of the anterior wings black, discal and subapical areas white, the latter tinged with yellow, an oval red spot near the outer margin between the median vein and its second branch. Posterior wings orange-yellow, a large irregular spot near the base, the discal portion of the costa and the outer margin black, the latter with a narrow submarginal white line; a black band nearly parallel to the outer margin, between which and the black margin the yellow is of a greenish tint, a large red spot at the base of the costa, and a few red scales near the apical angle.

Body and palpi white, antennæ black.

Female. Larger than the male. Anterior wings with only the discal portion as far as the inner margin dirty white, with a faint yellow tinge, the cell greyish, the apical half of the wings black with a large subapical yellow spot divided by the black veins. Posterior wings sordid white, faintly tinged with yellow, the outer margin black, inwardly edged with brown.

UNDERSIDE. Similar to that of the male, but the black of the anterior wings more extended, that of the posterior wings less so, the band parallel to the outer margin being absent.

Hab. New Ireland (Rev. G. Brown).

In the Collections of Henley Grose Smith and Messrs. Godman and Salvin.

In the original description, the type, and the only specimen in the Collection of Messrs. Godman and Salvin, is said to be a female. This now proves to be a mistake.

On the upper surface of the wings *M. Eucosmetos* resembles *M. Geoffroyi*, Guér., from New Guinea, but, as will be seen on reference to the plate, there are several differential characters, especially on the under surface, and in no other species is the yellow colour so extensive.

The female described and figured is in the Collection of Mr. Henley Grose Smith. (O. S.)

NYMPHALINÆ.

NYMPHALINÆ.

NYMPHALINÆ.

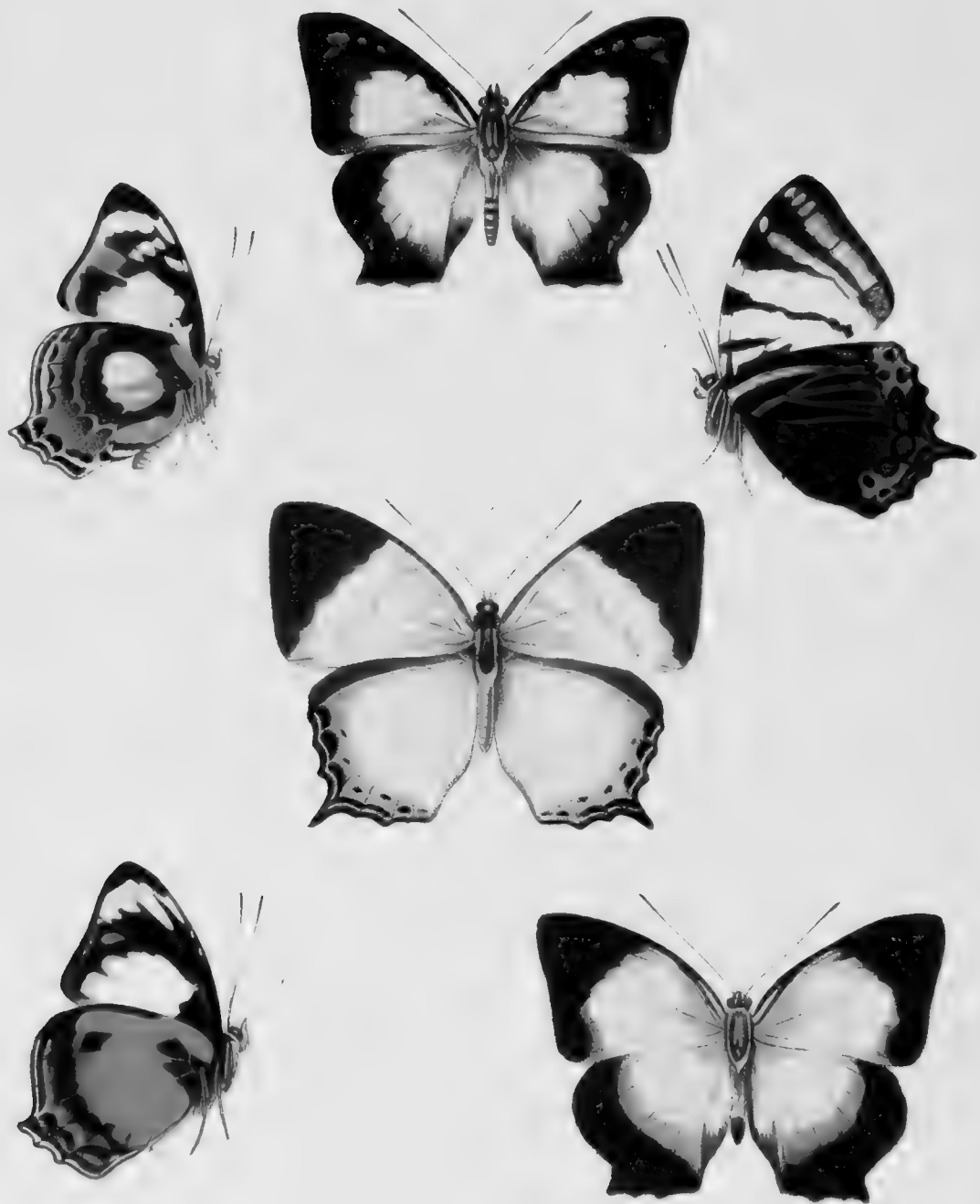


Plate Nymphalidae

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NYMPHALIDÆ.—NYMPHALINÆ.

MYNES. II.

III.—MYNES WOODFORDI. ♂. FIGS. 1, 2.

Mynes Woodfordi, Godman and Salvin, "Annals and Magazine of Natural History," ser. 6, vol. 1, p. 99 (February, 1888).

Exp. $2\frac{1}{2}$ inches.

Male. UPPERSIDE black, anterior wings filled up from the base to beyond the cell, and over the disc with a large greenish-white blotch, irrorated with black towards the base and inner margin; there is a short greenish-white basal streak above the cell, and on the outer half of the wing, towards the costa, are some slight patches of greenish-white dusting, and others, still less distinct, towards the hind margin. Hind wings pale from the base to beyond the middle; the base, and the outer portion of the pale part shade into bluish, the central part is creamy-white, rather than bluish-white.

UNDERSIDE anterior wings with the pale basal portion less greenish than on the upperside, and with two black concavities near the base above, and one below. Costa, apical and marginal region blue-black, with an oblique white subapical band, divided by the nervures, which then becomes submarginal, and is connected with the pale basal part of the wing on the inner margin; within it, opposite the middle of the hind margin, is a large oblong reddish-orange spot; and below the costal end of the white band is a row of three white spots, and nearer the base, is another long oblique white spot, surmounted by a yellowish-white dash close to the costa. Posterior wings dark greyish-brown, shading into blackish on the costa; a large orange-red blotch at the base of the costa, a sulphur-yellow stripe running obliquely outwards and downwards from the base of the inner margin, opposite to which is a large oval spot, yellowish on the inner side, and more cream-coloured on the outer side; beyond these, are four pale bands, more or less following the curves of the hind margin; the first yellowish-grey, the second mossy-green, and very broad on its lower half, between which and the inner margin are two long creamy-white dashes, and the two

outermost are whitish, the outermost curving round by the inner margin; the incisions on the hind wings are also marked with cream-colour.

Head, legs, antennæ and palpi black above; thorax greenish-grey above; abdomen and undersurface, except of the antennæ, mostly yellowish; pleura banded with black.

Hab. Solomon Islands: Alu (Woodford).

In the Collection of Messrs. Godman and Salvin.

“Mr. Woodford’s Collection contains a single male example of this species, which seems sufficiently distinct from the very variable *M. Geoffroyi*, Guérin. It also differs more widely from the species we described from New Ireland as *M. Eucosmetos*, in which the whole of the central portion of the secondaries is intensely yellow, and the spots of the apex of the primaries are blended into one continuous patch divided only by the black nervules” (G. and S.).

It is also closely allied to *Mynes Hercyna*, Godm. and Salv. (*antæa*, vol. 1, *Mynes*, pl. 1, figs. 1-3), which differs chiefly on the upper side of the anterior wings, which have the submarginal pale markings much larger and more distinct, and the large pale space towards the base of the wing much more irregular, and divided into distinct spots by the nervules.

IV.—MYNES WEBSTERI. ♂. Figs. 3, 4.

Mynes Websteri, H. Grose Smith, in “*Novitates Zoologicæ*,” I., p. 586 (July 1894).

Exp. $2\frac{3}{8}$ inches.

“*Male*. UPPERSIDE. Anterior wings greenish-white, with the apical third black, the inner edge of the black area, which is irregular, extending obliquely from the costa at two-thirds from the base to the outer angle; the black markings on the underside show indistinctly through the white area. Posterior wings with the space above the subcostal nervure to the costal margin greyish-black, and a rather narrow sinuate black band along the outer margin, inside which is a series of black bars, those towards the apex the broadest, thence to the anal angle narrower and becoming obsolete, the space between the bars and the marginal band occupied by a sinuate greenish-blue line; there is a broad obscure band of the same colour inside the bars, which extends round the wings and below the subcostal nervure to the base; the uppermost median nervule is prolonged into a very distinct tail, which is black; the ciliæ and one side of the tail are white.

UNDERSIDE. Anterior wings white, irrorated with black towards the apex and crossed by five greyish-black bars: the first bar, at the base, extends

broadly and almost longitudinally across the base of the cell and the basal portion of the space between the lowest median nervule and the submedian nervure; the second bar crosses the cell very obliquely a little before the middle, and extends narrowly along the lowest median nervule until it joins the next bar; the third bar, which is sinuate and less oblique, is wide on the costal margin, decreases in width to the end of the cell, thence crosses the median nervules and ceases on the submedian nervure; the fourth and fifth bars are also wide on the costal margin, and are almost parallel to and nearer each other, and, decreasing in width, cease on the lowest median nervule: the outer margin is broadly greyish-black, and inside its lower end, in the interspace between the lowest median nervule and the submedian nervure, and extending a little below the latter, is a large subquadrate spot of gold, in which are situate two indistinct black spots. Posterior wings brownish-black, crossed from the base and inner margin to about the middle of the wings by nearly parallel longitudinal grey streaks or lines, the uppermost, a little below the costal margin, the broadest; the second crosses the upper part of the cell and is less distinct; the third is short, the fourth and fifth are the longest, and cease on the uppermost median nervule where they converge, the fifth streak throws out a quadrate loop above the anal angle; on the margin, from the apex to a little below the second subcostal nervule, is a broad subquadrate bar of gold, in which are situate three oval black spots, the uppermost of which above the first subcostal nervule is single, the other two below it are placed longitudinally; this bar is followed by a broad band of black spots, the two uppermost confluent, with clusters of blue scales in each; a little before the anal angle, between the lowest median nervule and the submedian nervure, is a large subtriangular gold spot, in which are situate three oval black spots; there is a narrow submarginal sinuate grey line outside the discal black spots, and the ciliæ are white. The outer margin is emarginate."

Head and antennæ black, a white spot beneath each antenna; body clothed above with pale greenish-blue hair of the colour of the hind wings. Lower orbits, palpi, abdomen and front legs beneath, and a streak on the middle of the propectus white; meso- and metapectus and the extremity of the abdomen rusty-red.

Hab. Saddleberg, German New Guinea (Captains Cayley Webster and Cotton, 1894).

In the Collection of Mr. H. Grose Smith. One specimen only of this remarkable butterfly was sent; it bears no resemblance to any other species of the genus.

V.—MYNES COTTONIS. ♂. FIGS. 5, 6.

Mynes Cottonis, H. Grose Smith, "Annals and Magazine of Natural History," ser. 6, vol. 13 (June, 1894).

Exp. $2\frac{1}{4}$ inches.

"*Male*. UPPERSIDE resembles *M. Eucosmetos*, Godm. and Salv. [figured, *antea*, vol. 1, *Mynes*, pl. 1, figs. 4-6], but the pale area is purer white. On the anterior wings the pale patch towards the apex is less conspicuous, being scarcely visible. On the posterior wings, the pale area is more restricted, the outer third of the wings being more broadly and more bluish-black.

"UNDERSIDE. The subapical pale patch is pure white, not tinged with yellow as in *M. Eucosmetos*, and is considerably narrower; the pale area in the middle of the wings is also pure white, but more extended, and the red submarginal spot between the upper median nervules is much smaller. On the posterior wings the red costal band at the base of *M. Eucosmetos* is extended uninterruptedly into the interspace between the costal nervure and the upper subcostal nervule, and extends over it towards the apex until it joins the dark outer-marginal band; the outer three-fourths of the costal margin is broadly black, the basal fourth being red, below which is a large black patch at the base, as in *M. Eucosmetos*, which extends over the basal part of the cell and of the interspace above it; the outer third of the wings is blue-black, in which, between the median nervules and submedian nervure, are situate three greenish-yellow patches, and a series of submarginal pale streaks." (H. G. S., *loc. cit.*)

Head and antennæ above black, the former spotted with white; thorax bluish-grey, abdomen lighter, palpi white below, pectus yellow in the middle, grey on the sides, legs brown, femora with a white line beneath; abdomen white below.

Hab. New Britain (Captains Cayley Webster and Cotton).

In the Collection of Mr. H. Grose Smith. Described from a single male specimen.

NYMPHALIDAE.
 NYMPHALINAE.
 PROTHOE I.



W. H. Fisher, del. et lit.

West. Newman, imp.

1, 2 PROTHOE RIBBEI ♂. 3, 4. PROTHOE LAYARDI ♂.

NYMPHALIDÆ.—NYMPHALINÆ.

PROTHOE. I.

I.—PROTHOE RIBBEI. ♂. Figs. 1, 2.

Prothoe Ribbei, Rothschild, "Novitates Zoologicæ," II., p. 161 (1895).

Exp. ♂. 4.2 inches (= 107 mm.; ♀. 4.5 inches (= 115 mm.)

Male. UPPERSIDE black. Anterior wings with a greenish-white band, narrower and macular above, running between the fourth subcostal nervule and the submedian nervure. Posterior wings with a broader curved greenish-white band, slightly produced on the median nervules, running from below the costa to the submedian nervure, beyond which it is continued by a few specks. Inner margin of posterior wings whitish at the base below the submedian nervure; the internal nervure is also white. The lower part of the wing is broadly sub-lobate.

UNDERSIDE. Anterior wings brown, with a row of yellowish-white sub-marginal spots, varying in form, between the nervures; largest and most distinct towards the tip; cell with from five to seven bluish-white spots; below the costa, within the submarginal spots, are traces of two obsolete bluish-white spots. Posterior wings darker brown, with several bluish-white spots along the costa and inner margin, and in the cell. There are three rows of submarginal markings, the innermost bluish-white, linear or slightly curved, separated by the nervures; the middle consisting of eight semicircular or heart-shaped outlines, within which are a few specks of the same colour; and the outermost row consisting of yellow markings, that between the upper median nervules golden-yellow, nearly square, with an irregular triangular projection on the inner side; the spot above it lemon-yellow, semicircular, the rest on either side much paler, and linear.

Body black, head and body below spotted with white; collar whitish above; orbits and palpi beneath white; femora and tibiæ lined with white or grey.

Female larger and browner. The band on the anterior wings is much

narrower, macular, or even reduced to a spot on the inner margin; that on the anterior wings is also narrower; inner margin not white at the base. On the UNDERSIDE, the submarginal spots on the anterior wings are more distinct.

Hab. Bougainville Island; Solomon Islands.

The types, one of which is figured, are in Herr Carl Ribbe's Collection; other specimens are in the Hon. W. Rothschild's Collection at Tring.

II.—PROTHOE LAYARDI. ♂. FIGS. 3, 4.

Prothoe Layardi, Godman and Salvin, "Proceedings of the Zoological Society of London," 1882, p. 758.

Exp. 4.3 inches.

Male. UPPERSIDE black, anterior wings with an oblique row of four long subapical spots, the two lowest longest, narrowest, and interrupted. Posterior wings with a very large greenish-white patch, more cream-coloured in the middle, covering almost the whole of the disc, except at the edges, beyond the discoidal cell.

UNDERSIDE lighter brown, with several white spots in the cell; the subapical spots are whiter, smaller, and more sharply defined; the third is represented by two separate small spots, and the fourth by one only. Posterior wings with several white spots at the base and in the cell; and with four rows of slender bluish crescents, the two inner rows open basally, and the two outer rows marginally. Outside these is a further row of five marks, the two uppermost linear, nearly obsolete, the third yellowish, the fourth very large, orange-yellow, and of irregular shape; the fifth yellow, and forming a broad shallow arch. The fourth and fifth are placed on the lobe.

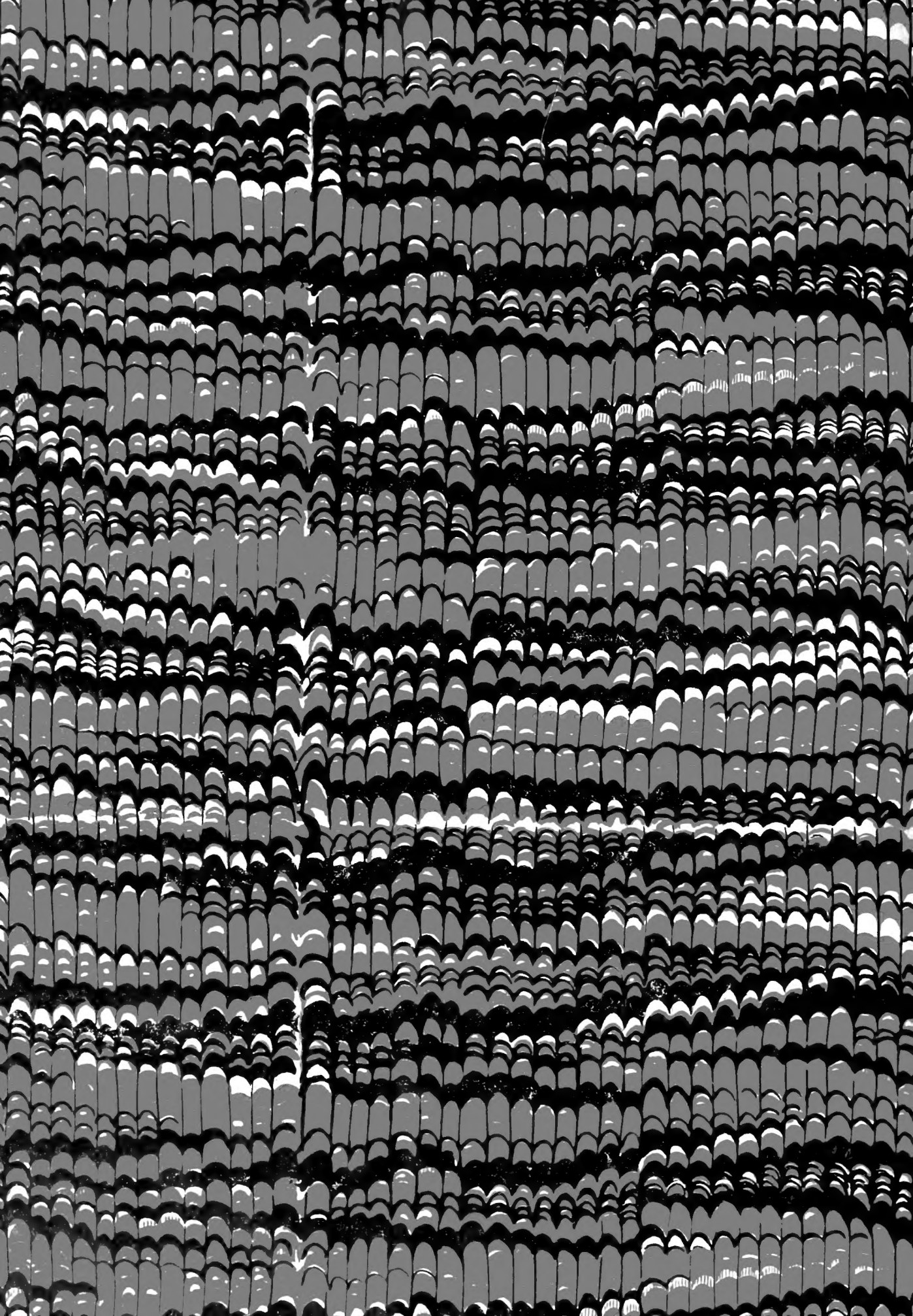
Body black, orbits and palpi beneath white; legs streaked with white.

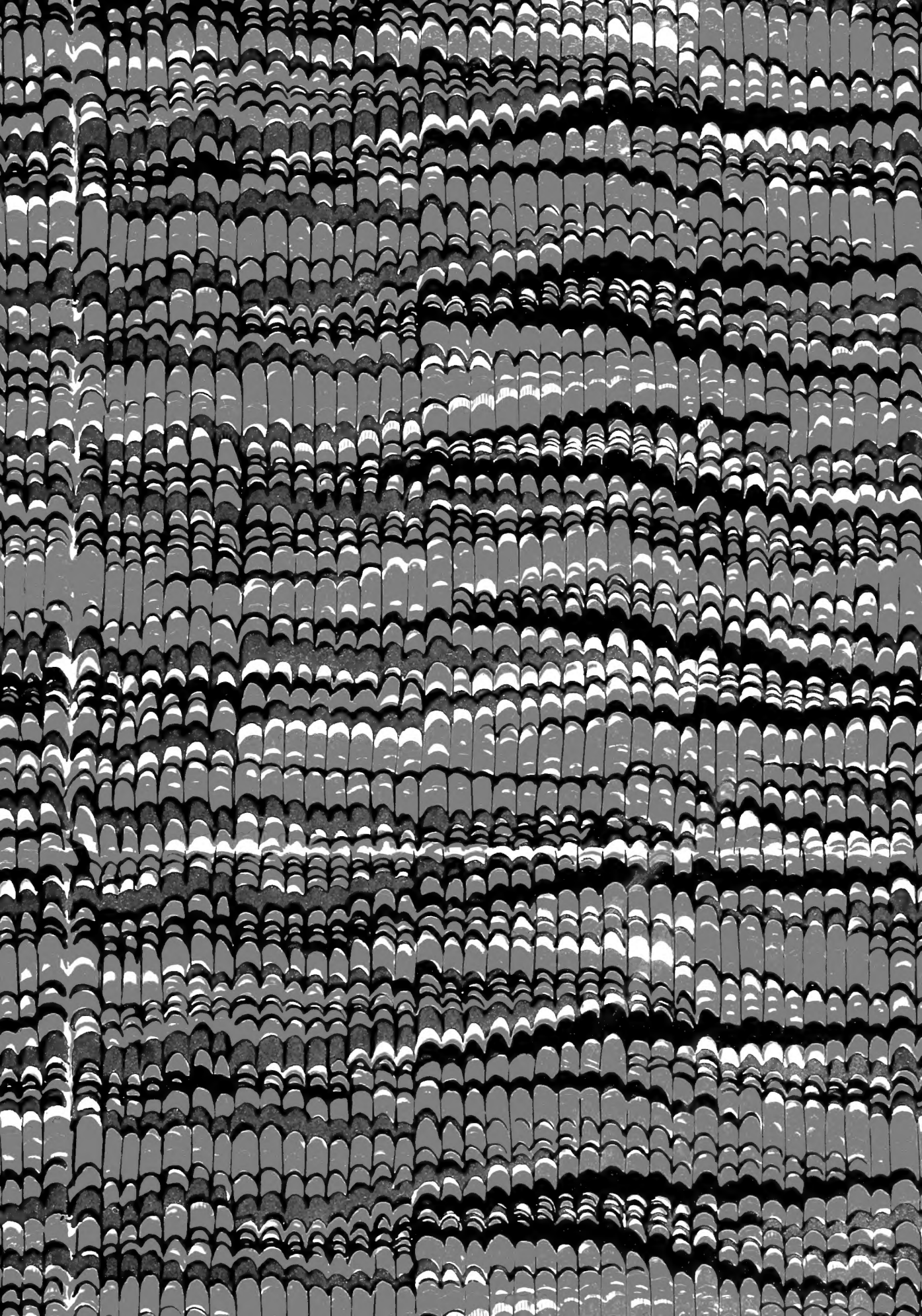
Hab. New Iceland (Rev. G. Brown, and Mr. E. L. Layard).

In the Collections of Messrs. Godman and Salvin, and of Mr. H. Grose-Smith.

Belongs to the group of *Prothoe Australis*, Guérin; but has a great general resemblance to the group of *Papilio* (*Nestorides*, Hübner) of which *P. Gambrisius* (Cramer) is typical.







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